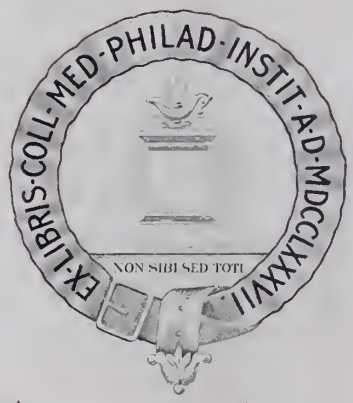
pp. 399-402
583-4 missing

118961



Class _____ No. _____

Presented by

E. E. Krumbhaar, M.D.

8 5·15

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

Digitized by the Internet Archive
in 2016

https://archive.org/details/wisconsinmedical3619stat

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

The Wisconsin Medical Journal

IN THIS ISSUE

Symposium on Nephritis

RENAL EDEMA
By Francis D. Murphy, M. D.
INSURANCE RISKS
By D. E. W. Wenstrand, M. D.
R. W. Benton, M. D.
USE OF CYANATES
By M. Herbert Barker, M. D.
HERNIA,—AMBULANT TREATMENT
By Arthur F. Bratrud, M. D.

COLLEGE OF PHYSICIANS
LIBRARY
MAY 26 1937
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 4

XXXVI, Number 1
Washington Avenue

MADISON, WISCONSIN, JANUARY, 1937
Copyright, 1937, by The State Medical Society of Wisconsin
Per Year $3.5
Single Copy 50 Cen

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

Medical Directors:
T. H. HAY, M. D. 1906-1916
J. W. COON, M. D. 1916-1934
H. M. COON, M. D. 1934-

- A PRIVATE SANATORIUM.
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES.
- CAREFULLY SUPERVISED REST.
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Additional Information, Apply To:
Medical Director, Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

YOU can have the same conscientious service you help us give!

● Doctors are the allies of EMPLOYERS MUTUALS in their war against human suffering and economic loss caused by industrial diseases and accidents. To handle such cases with the maximum of speed and the minimum of waste and suffering, EMPLOYERS MUTUALS has built a technique and an organization second to none. That same organization is available to purchasers of other forms of Insurance—Automobile, Public Liability, Fire, etc. You, as a Doctor, recognize the conscientious, rapid service of EMPLOYERS MUTUALS. This service is available to you in your Automobile and other Casualty and Fire Insurance, plus the savings that the Mutual form of company, and the efficiency of EMPLOYERS MUTUALS, can make for you. Allow one of our representatives to give you facts and figures . . . recommend coverage for your safety . . . show you our record. A letter or call to any office is all that is needed.

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

EMPLOYERS MUTUALS

Appleton
Eau Claire
La Crosse

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.
EMPLOYERS MUTUAL INDEMNITY CORPORATION
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY
Home Office: Wausau, Wisconsin

Madison
Milwaukee
Superior

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 1

MADISON, WISCONSIN, JANUARY, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

Symposium on Nephritis:

1. Phases of Renal Edema by Francis D. Murphy, M.D., Milwaukee ---- 17
2. Nephritis from the Standpoint of the Insurance Companies by D. E. W. Wenstrand, M.D., and R. W. Benton, M.D., Milwaukee ---- 26
3. The Use of Cyanates in the Treatment of Hypertension by M. Herbert Barker, M.D., Chicago ---- 28

The Ambulant Treatment of Hernia by Arthur F. Bratrud, M.D., Chicago ---- 34

Postgraduate Courses on "Prevention of Disabilities in Children" Held Throughout State Councilor Districts ---- 41

EDITORIALS

Page

Water Balance ---- 42
Vitamin D Toxicity ---- 43

MISCELLANY

The President's Page ---- 44
Society Proceedings ---- 45
Woman's Auxiliary ---- 47
News Items and Personals ---- 50
Radio Program ---- 51
Society Records ---- 51
Correspondence ---- 52
Federal Social Security Act; Unemployment Compensation and Old Age Retirement Pay Roll Taxes Affecting Physicians as Employers ---- 53
Books Received for Review ---- 55
Book Reviews ---- 55
Physicians' Exchange ---- 64

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]

"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physio-mechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D.
William F. Ragan, M.D.
Frank W. Mackoy, M.D.
J. Frampton Wyman, M.D.
Milton C. Borman, M. D.
Hubert H. Blanchard, M.D.

When writing advertisers please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **B. P. Grimes, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

New Year's Greetings To All Our Good Friends

"Established 1913"

N. P. BENSON OPTICAL CO., Inc.

Main Office MINNEAPOLIS, MINN.

ABERDEEN BISMARCK RAPID CITY STEVENS POINT
LA CROSSE WAUSAU DULUTH EAU CLAIRE

An Accepted, Highly Effective Milk Modifier . . . at an Approximate Cost of

2¢

PER DAY

On the basis of tested and approved feeding schedules averaged for babies up to the age of nine months, one tablespoon of Karo would be used with about 6 fluid ounces of milk. On this basis, a one and one-half pound tin of Karo (which sells in grocery stores for about 12c) will furnish the necessary amounts of easily assimilated carbohydrates, dextrin, maltose and dextrose, for 6 quarts of whole milk. Probably no other infant food of equal acceptance is available at such low cost as Karo.

Mothers, generally, will appreciate their doctors' suggestion of Karo as an effective, economical milk modifier.

Karo is accepted by the Council on Foods of the American Medical Association.

★ **Infant feeding practice is primarily the concern of the physician, therefore, Karo, for infant feeding, is advertised to the Medical Profession exclusively.**

For further information, write "SJ1"
CORN PRODUCTS SALES COMPANY, 17 Battery Place, New York, N. Y.
When writing advertisers please mention the Journal.

DO YOU KNOW THESE MEN?

L. A. COLES

F. G. MC INTOSH

E. H. RUNGE
940 W. St. Paul Avenue
Milwaukee, Wis.

L. J. DORSCHEL
Box 390
Madison, Wis.

J. J. VICTOR
Box 61
Green Bay, Wis.

S. V. CUTHBERT

E. A. NICKERSON
321 Medical Arts Building
Minneapolis, Minn.

B. F. HAMMER
1710 E. 8th Street
Duluth, Minn.

N. MC MAHON
Green Isle,
Minnesota

THEY are representatives of the General Electric X-Ray Corporation in your vicinity. They live here, work here — always within call when you need their help.

Time was when dealers and agents sold and serviced G-E equipment, theoretically assumed full responsibility for it. But to you, that was not always satisfactory. You didn't want responsibility divided between agent and manufacturer. We wanted to know, beyond question, that your equipment was performing properly, that you were given satisfactory service, and that adequate facilities were easily accessible to you.

The answer was the establishment of direct factory branches, and the selection and training of a large group of men who could be, to your satisfaction, the General Electric X-Ray Corporation in your vicinity. They were carefully selected, painstakingly trained to be able to help you in a highly specialized field. They *know* G-E x-ray and electro-medical equipment, and they can help you select the proper type and assist you in getting from it the ultimate in direct benefits.

If you don't already know the G-E man in your locality, we hope you'll get acquainted. He'll prove to be a worthy friend.

GENERAL ELECTRIC X-RAY CORPORATION

CONSERVATION OF ESSENTIAL ELEMENTS IN PROTECTIVE FOODS

I. MINERALS

● Considerable differences may exist between the mineral contents of foods from both the qualitative and quantitative standpoints. In fact, variation in mineral content has been noted even in the same plant variety; such variations being dependent, among other factors, upon soil or climatic conditions (1).

A striking example of the influence of one of these factors is the relative richness in iodine of field crops raised in certain coastal regions of this country where the soil is also high in iodine.

From the point of view of those concerned with human nutrition, interest in the mineral content of the food supply is usually centered around calcium, iron and iodine; since it is generally agreed that of all the essential minerals, these are the ones most apt to be inadequately supplied by the average varied diet. Conservation of these minerals in foods is, therefore, a matter of considerable practical interest.

Unlike the vitamins, minerals are not lost during storage of fruits and vegetables. However, solution losses during cooking may be severe, due to the fact that most minerals, as they occur in the plant, are soluble, or at least are extractable, by the water in which they are cooked. For example, cabbage cooked by the usual home method has been shown to lose from 21 to 72 per cent of its calcium (2).

As exemplified by these studies, solution losses of minerals in leafy vegetables are usually high. Losses in vegetables as a class are not, however, so excessive, as indicated by an average reported loss of 19.5 per cent of the calcium in seven common vegetables (3).

The average decrease during cooking in the ash content of five common vegetables has been found to approximate 37 per cent (4).

While the extent of mineral loss during ordinary home cooking methods will vary with the particular element under consideration as well as the food in which it is contained, sufficient evidence is at hand to indicate that such losses may be considerable. It is further apparent that discarding the cooking water—the usual home practice—entails a loss of valuable, essential mineral components of food.

Modern practice in commercial canning goes far in preventing these solution losses of minerals. Canned foods are cooked by the heat process accorded them while still contained within the hermetically sealed can. A minimum of water is used which also remains within the can, conserving for the consumer's use those extractable essential mineral elements which may be lost to the cooking water during home preparation of market varieties of foods.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

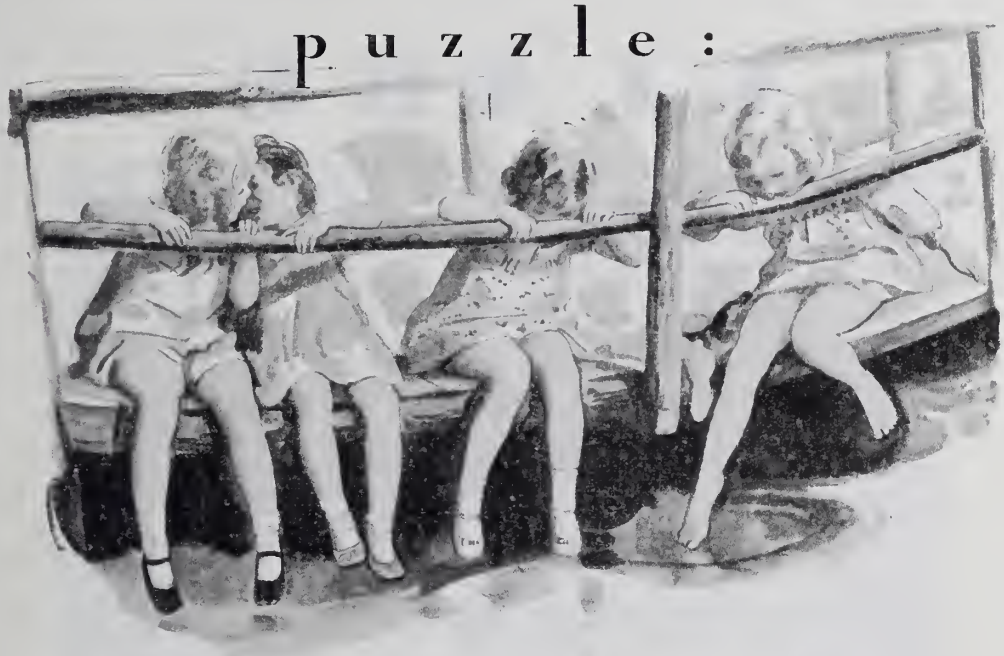
(1) 1936 J. Nutrition 11, 55.
(2) 1936 J. Home Econ. 28, 18. 1925 Ibid, 17, 265
(3) 1935 J. Home Econ. 27, 376
(4) 1917 Amer. J. Dis. Child, 14, 34

This is the twentieth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

puzzle:



pick out Mary Lou's Legs

Mary Lou had rickets when she was a baby. Once that might have made her easy to identify! But now doctors know how to treat rickets effectively, and they know what to do to prevent it. Promptly treated, rickets seldom results in bow legs or knock knees. So the answer to our puzzle is—you can't pick out Mary Lou!

Fewer children with iron braces! More children with legs as straight and handsome as young saplings! Fewer hollow chests! More well-shaped jaws and pleasing little profiles! *These are some of the advantages which modern developments in vitamin medication—especially vitamins A and D—have made possible.*

Here is something we'd like to have you keep in mind: Problems involving vitamins have been studied in the Parke-Davis Laboratories every day for over twenty years—a rich background of experience. For your young patients or old, it is a sensible precaution to specify "Parke-Davis."

Parke-Davis Haliver Oil with Viosterol is supplied in 5-cc. and 50-cc. vials with dropper, and in boxes of 25, 50, 100, and 250 three-minim capsules.

Haliver Oil is the *original* halibut liver oil preparation introduced to the medical profession in February, 1932.

PARKE, DAVIS & CO.

Home Offices and Laboratories

DETROIT, MICHIGAN

GLARE

DURING WINTER TIME

and it is some *glare* too.

When the bright sunshine hits against the white snow and ice which covers everything outdoors, what a strain it is on human eyes!

Just as the name **"Soft-Lite"** implies, **Soft-Lite** lenses and **Soft-Lite** sport glasses soften the light, thus absorbing that penetrating glare whereby creating eye comfort.

Soft-Lite is needed during the winter months just as much as it is in the summer season.

THE MILWAUKEE OPTICAL MFG. CO.

730 N. Jackson St. **231 W. Wisconsin Ave.**

MILWAUKEE

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St.,
Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268–2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS

Walter S. Barnes, M.D., Bennet R. Parker, M.D., Frederick Menge, M.D., S. C. Plummer, M.D.

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)

ANNOUNCES CONTINUOUS COURSES

MEDICINE—Informal Course first of every week; Intensive Personal Courses.

SURGERY — General Course One, Two, Three and Six Months; Intensive Course Surgical Technique every two weeks; Special Courses.

GYNECOLOGY — Three Months' Course; Intensive Two Weeks Course starting February 15, 1937.

OBSTETRICS — Informal Course; Intensive Two Weeks Course starting February 1, 1937.

FRACTURES AND TRAUMATIC SURGERY—Informal Practical Course; Intensive Ten-Day Course starting February 15, 1937.

EAR, NOSE AND THROAT—Informal Course; Personal Courses; Intensive Two Weeks Course starting April 5, 1937.

OPHTHALMOLOGY—Intensive Two Weeks Course starting April 19, 1937.

UROLOGY — General Course Two Months; Intensive Course Two Weeks; Special Courses.

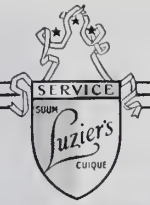
CYSTOSCOPY — Intensive Course every two weeks (attendance limited).

GENERAL, INTENSIVE and SPECIAL COURSES IN ALL BRANCHES OF MEDICINE AND SURGERY.

Teaching Faculty—Attending Staff of Cook County Hospital

Address:

Registrar, 427 South Honore Street, Chicago, Ill.



Quality Survives!

TO THE DOCTOR'S WIFE

●

We earnestly request that you favor our Representative with an opportunity to introduce you to Luzier's Beauty Service—because, frankly, we consider you an excellent type of patron. You are active and influential in the life of your community; with you perfect grooming is a matter of habit; and certainly you, better than most women, are in a position to appreciate the two claims made for our preparations . . . We offer you cosmetics of (1) unexcelled quality * that (2) are selected to suit your requirements. It is in this latter regard that our Representative is trained to serve you . . . Your satisfaction is assured under a money-back guarantee.

* The ingredients used in Preparations by Luzier have been made known to the American Medical Association, and may be had on your husband's request.

Luzier's, Inc., Makers of Fine Cosmetics

KANSAS CITY, MO.

Old Way...

CURING RICKETS in the CLEFT of an ASH TREE

FOR many centuries,—and apparently down to the present time, even in this country—ricketic children have been passed through a cleft ash tree to cure them of their rickets, and thenceforth a sympathetic relationship was supposed to exist between them and the tree.

Frazer* states that the ordinary mode of effecting the cure is to split a young ash sapling longitudinally for a few feet and pass the child, naked, either three times or three times three through the fissure at sunrise. In the West of England, it is said the passage must be "against the sun." As soon as the ceremony is performed, the tree is bound tightly up and the fissure plastered over with mud or clay. The belief is that just as the cleft in the tree will be healed, so the child's body will be healed, but that if the rift in the tree remains open, the deformity in the child will remain, too, and if the tree were to die, the death of the child would surely follow.

*Frazer, J. G.: The Golden Bough, vol. 1, New York, Macmillan & Co., 1923

It is ironical that the practice of attempting to cure rickets by holding the child in the cleft of an ash tree was associated with the rising of the sun, the light of which we now know is in itself one of Nature's specifics.

New Way...

Preventing and Curing Rickets *with* OLEUM PERCOMORPHUM

NOWADAYS, the physician has at his command, Mead's Oleum Percomorphum, a natural vitamin D product which actually prevents and cures rickets, when given in proper dosage.

Like other specifics for other diseases, larger dosage may be required for extreme cases. It is safe to say that when used in the indicated dosage, Mead's Oleum Percomorphum is a specific in almost all cases of rickets, regardless of degree and duration. Mead's Oleum Percomorphum because of its high vitamins A and D content is also useful in deficiency conditions such as tetany, osteomalacia and xerophthalmia.

Mead's Oleum Percomorphum is not advertised to the public and is now obtainable at drug stores at a new economical price in 10 c.c. and 50 c.c. bottles and 10-drop capsules.

MEAD JOHNSON & COMPANY, Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

CONFIDENCE...

The weight and bloodpressure readings are recorded with confidence because both instruments operate on the true-gravity principle which assures unvarying accuracy. Smallest, Lightest, Handiest ... the KOMPAK Model, cased in Duralumin, is guaranteed against glass breakage for your Lifetime.

W. A. BAUM CO. INC. NEW YORK

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

A DISCLAIMER

PHILIP MORRIS & COMPANY do not claim that Philip Morris cigarettes cure irritation. But they do say that an ingredient – glycerine – a source of irritation★ in other cigarettes, is not used in the manufacture of Philip Morris.

In Philip Morris cigarettes only diethylene glycol is used as the hygroscopic agent.

★ *Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245*
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11
Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3, 306-309

Philip Morris & Co. Ltd. Inc. **Fifth Ave., N.Y.**

For exclusive use of practising physicians

PHILIP MORRIS & CO. LTD. INC.
119 FIFTH AVENUE NEW YORK

Absolutely without charge or obligation of any kind, please mail to me

★ Reprint of papers from
N. Y. State Jour. Med. 1935, 35—No. 11, 590; Laryngoscope 1935 XLV, 149-154. Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245. ☐

For my personal use, 2 packages of Philip Morris Cigarettes, English Blend. ☐

SIGNED: _____

ADDRESS _____

CITY _____ STATE _____ WIS

THE SUMMIT HOSPITAL

Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Homelike Environment

Excellent Cuisine

Moderate Rates

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

Patients need not grope when buying Vitamin products!

Nobody need be in the dark if Abbott's Haliver Oil with Viosterol is prescribed. For it can be depended upon to provide Vitamins A and D in the amounts claimed on the label. Methods and assays used throughout the manufacture of this Abbott specialty are your assurance.

Rigid bio-assays conducted by a staff having long and distinguished experience in the vitamin field establish the potency of each lot of Abbott's Haliver Oil. Then from released lots samples are kept and assayed at intervals to verify the stability of the Abbott product awaiting your prescriptions on the druggists' shelf.

Moreover, Abbott maintains beginning-to-end control of production. Also of much importance to you and your patients is the fact that Abbott's Haliver Oil with Viosterol is an original research product, and so has behind it many years of research and manufacturing experience of uncommon extent and character.

Prescribe Abbott's Haliver Oil with Viosterol for growing children, pregnant and lactating mothers, and all other patients who for any reason require additional amounts of Vitamins A and D. Available at prescription pharmacies everywhere in soft, tasteless, 3-minim capsules in boxes of 25, 100 and 250; and in 5-cc. and 50-cc. vials with special droppers.

ABBOTT LABORATORIES, NORTH CHICAGO, ILL.

Abbott's

HALIVER OIL

WITH VIOSTEROL

ABBOTT LABORATORIES I—1-37
North Chicago, Illinois

Send me FREE samples of Abbott's Haliver Oil with Viosterol capsules and vitamin literature.

_____ M. D.

Address _____

City _____

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$32.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department

Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 1 Copyright, 1937, by The State Medical Society of Wisconsin JANUARY, 1937

SYMPOSIUM ON NEPHRITIS

I. Phases of Renal Edema*

By FRANCIS D. MURPHY, M. D.
Milwaukee

THERE are a few clinical syndromes seen so often and discussed so much, concerning which we have had so little knowledge, as edema, and especially that of the renal type. Notwithstanding the obscurity of the pathogenesis of some types of renal edema, it is important from the standpoint of treatment to be able to visualize as fully as possible the pathological physiology which influences its formation. It is my purpose here to attempt to show how the modern treatment of renal edema is based upon our knowledge of its pathogenesis. A complete discussion of the edema problem will not be given as this was adequately done before the society last year by Dr. Warfield.[1]

The syndrome of edema has a special significance in the study of cases of Bright's disease, for it was during his investigations of the cause of dropsy in patients with albuminous urine that Bright[2] discovered the kidney lesions now called Bright's disease. Before the time of Bright it was pointed out by others, particularly by Blackall,[3] that anasarca was frequently associated with albuminous urine. He noted that such edema occurred after scarlet fever. It is interesting to notice that Bright's conception of the pathogenesis of edema came closer to our modern view than that of any other investigator of his day, and, for that matter, than of any investigator until very recent times. Bright believed that as a result of the loss of albumin from the blood in albuminuria the blood became watery (hydremic) and that the capillary walls permitted the passage of the diluted serum to the surrounding tissue with greater ease than normal, hence dropsy. After Bright's time, the prevailing opinion until the end of the nineteenth century was that the scantiness of urine which followed kidney disorders led to the accumulation of water in the blood. The term hydremic plethora was applied to this condition and such writers as Bartels[4] believed that it was the cause of renal edema. Their contemporaries, however, did not accept this theory without a challenge, and Cohnheim[5] proved experimentally that such an explanation was inadequate. He believed that the essential factor in edema formation was an alteration in the walls of the capillaries which allowed the seepage of fluid into the surrounding tissues.

From the time of Bright until about the year 1895 renal edema was studied to a large degree from the viewpoint of pathologic anatomy. Many attempts were made to link the renal edema with certain types of kidney lesions. There was, however, no unanimity of opinion concerning the relationship between the various kidney lesions and edema formation. Then the theory of pathogenesis of renal edema began to shift from the purely pathologic anatomical view to a physiochemical one. For a time at least the anatomical lesions were put aside and the functional changes began to attract attention. In the years that followed we shall see that renal edema was not considered to depend exclusively on any specific kidney lesion

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, Sept., 1936.

148961
APR 11 1938

and furthermore that certain common factors were thought to exist and to take part in the formation of the edema of every type. This modern point of view may be dated back to Starling's discovery in the year 1895. He called attention to the fact that proteins in the blood stream exerted osmotic pressure which was practically balanced by the hydrostatic blood pressure in the capillary fields. The fluid balance, he believed, was maintained by these two great forces.

The significance of Starling's discovery was not put into practical use until Epstein[6] pointed out in 1913 that the protein in the blood stream of certain nephritics was greatly reduced. He showed that there was a lowered serum protein content in patients suffering from chronic parenchymatous nephritis. He believed that this reduction of serum protein lowered the osmotic pressure and was, therefore, responsible to a large degree for edema formation. Later on support for this theory was obtained experimentally by Leiter[7] and by Barker and Kirk.[8] These later investigators obtained a reduction of plasma proteins by plasmapheresis. In their experiments dogs were bled and the corpuscles were replaced in saline instead of plasma and returned to the blood stream. After a certain number of such procedures the serum proteins were observed to fall to about three and one half to four grams per cent. When this occurred edema developed with regularity.

In the year 1903 a series of observations relating to the part played by sodium chloride in the production of edema was reported by Widal,[9] Lemierre[10] and Widal and Javal.[11] These investigations had a profound effect on the clinical classification and treatment of Bright's disease for many years to come. In brief, they pointed out that salt increased the edema of the renal type whereas the withdrawal of salt from the diet led to diuresis and freedom from edema. They concluded that the chief cause of edema in nephritis was the inability of the kidney to excrete salt which resulted in the retention of water to keep the salt concentration of the tissue fluids normal. Later on the sudden popularity of the theory of edema production based upon changes in the blood proteins for a time appeared to overshadow Widal's work. But from the clinical standpoint it seemed definitely established that salt-free diets had a beneficial effect on renal edema, while the administration of salt in the diet led to further retention of water in the tissues.

Investigators in the clinic and laboratory found it difficult to explain renal edema exclusively on the basis of plasma protein deficit and it seemed equally as difficult to consider retention of sodium chloride responsible for the development of edema. Cases were observed in which low plasma proteins were not accompanied by edema and in some cases the edema was seen to come and go without any marked change in the plasma protein content. The true explanation probably is that the reduction in plasma protein content is not the only factor in determining the production of edema. Obviously there are other factors and sodium chloride seems to be an important one. According to the view of Moore and Van Slyke[12] patients with a low plasma protein content show a tendency for edema formation. Repeated observations have emphasized the fact that there is no exact correspondence between the onset of edema and the fall of blood proteins to the critical level. If the albumin content of the blood stream is below two and one half grams per cent, which is known as the critical level, there may or may not be edema, but there is a tendency to edema. If edema is absent the administration of salt tends to cause edema, while withdrawal of salt tends to prevent it. When, on the other hand, the blood proteins are slightly above the critical level salt administration may produce edema where none existed before. Finally it is doubtful whether the administration of salt will cause edema in a nephritic when the plasma proteins are well above the critical level.

Two Forces

It appears definitely established then that there are at least two great forces in the production of renal edema: (a) An upset in the balance between the hydrostatic pressure in the capillaries and colloid osmotic pressure caused chiefly by a leaking away of protein in the urine leading

to plasma protein deficit. (b) Sodium chloride retention. Other factors, such as changes which occur in the capillary wall during acute nephritis, extra capillary tissue resistance and retention of minerals, may be adjuncts in determining the intensity, extent and persistency of edema. Concerning these factors there is too little accurate available information to warrant a clinical discussion. From the clinical viewpoint our knowledge of salt retention and of plasma protein variations is so much greater that the discussion here will be limited primarily to them. Since the deficit in blood proteins plays such an important role in our modern conception of renal edema, for the purpose of a better understanding the following brief statement of this theory is given: The hydrostatic pressure is the force which drives the fluid through the capillary wall into the surrounding tissue spaces and the "collodial osmotic pressure" of the blood proteins is the force that draws the fluid from the tissue spaces back into the capillary stream again. According to Krogh, Landis and Turner,[13] as the blood passes in its course from the arterial end of the capillary toward the venule end there is a gradual falling off in blood pressure. This fall is from 27 mm. of mercury to about 13 mm. of mercury. The fluid of the blood that is pressed out into the surrounding tissue spaces by blood pressure is not allowed to remain stagnant there, but is drawn back into the capillary by the osmotic pressure of the proteins of the blood. The osmotic pressure must be overcome by hydrostatic pressure in order for fluid to pass through the capillary wall toward the tissues. Hence at the arterial end of the capillary fluid is driven into the tissue spaces, but as the blood passes along the capillary toward the venous end the converse is true. Concentration of serum proteins increases and the consequence is that osmotic pressure is greater than hydrostatic pressure and fluid is drawn into the capillary. In certain pathological states, particularly nephritis, the leakage of large amounts of albumin in the urine greatly reduces the plasma proteins resulting, of course, in a lowered colloidal osmotic pressure and the formation of edema. In conditions such as genuine nephrosis or in glomerular nephritis with secondary nephrosis the edema is fairly adequately explained on the grounds of reduced plasma protein osmotic pressure. In other forms of nephritic edema, for example the edema of acute nephritis, such a mechanism fails to account for the edema and therefore we must look for its explanation elsewhere.

Clinical Features

Edema does not occur in all types of Bright's disease and is often absent in those cases with most profound renal insufficiency. Edema may appear in the most dissimilar forms of the disease. According to some modern writers the pathogenesis of edema in these varied forms has for a common factor the reduction in the collodial osmotic pressure. While this theory is adequate to explain the edema of chronic forms of nephritis it fails to account for the edema which occurs in acute nephritis. Since edema may occur in certain forms of Bright's disease and be absent in others a classification may be helpful in showing the relationship between the clinical forms, the presence of edema and the alterations in the plasma proteins. In chart I a classification is given and such a relationship is shown. In a general way, according to the table, Bright's disease may be classified into the acute and into the chronic forms. In acute nephritis edema may be present or absent. When edema occurs a fall in the serum protein is not present in the early stage. In the later stage, however, as the acute nephritis advances toward the subacute or chronic phase, the serum protein falls at times to the critical level. Yet from clinical observations one becomes convinced that the presence of edema in the early stages of acute nephritis depends on some other factor than the serum protein deficit, for patients are seen with acute nephritis and edema with a normal serum albumin and globulin.

Until recently most investigators thought that edema of acute nephritis was independent of changes in plasma protein content and held the capillary changes responsible for the edema. Some English investigators have dissented from this view. Among them Rennie[14] and Thomson[15] emphasized that the

edema of acute nephritis, like that of chronic nephritis, is dependent to a large degree on serum protein deficit. Rennie endeavored to show that it was possible to explain all types of nephritic edema by an upset of balance between the osmotic pressure and the serum protein and the hydrostatic pressure. In other words he attempted to explain all forms of renal edema by Starling's theory, that is, a sudden increase of capillary pressure plus a fall in serum osmotic pressure both operating in varying degrees to produce dropsy. In order to show that edema of acute nephritis is independent of changes in the plasma protein, an illustrative case is reported. In table 1 a summary of the data is given. In this case it is shown that the edema preceded changes in the albumin globulin content of the blood stream.

CHART I

CLASSIFICATION OF BRIGHT'S DISEASE SHOWING THE RELATIONSHIP OF EDEMA TO CHANGES IN SERUM PROTEIN

	Albuminuria	Edema	Serum Protein	B. P.	Remarks
I. Acute nephritis: (a) Early stage	+++	++	TP—7.0 Alb—4.0 Glob—3.0	150/115	
(b) Late stage (subacute)	+++	+++	TP—4.5 Alb—2.0 Glob—2.5	150/110	
II. Chronic nephritis: (a) Chronic glomerular nephritis with nephrotic syndrome (edema)	+++	+++	TP—4.2 Alb—1.8 Glob—2.4	160/100	
(b) Chronic glomerular nephritis without nephrotic syndrome (without edema)	++	0	TP—7.0 Alb—4.0 Glob—3.0	170/110	
(c) Chronic glomerular nephritis developing into renal sclerosis (heart edema)	+	0	TP—7.0 Alb—4.0 Glob—3.0	180/120	
III. Nephrosis, lipoid	++++	++++	TP—4.2 Alb—2.0 Glob—2.2	120/80	Hypercholesterolemia
IV. Arteriosclerotic Bright's disease: (a) Benign Hypertension — cardiac	++	+++	TP—7.0 Alb—3.8 Glob—3.2	210/120	
(b) Malignant Hypertension — edema	++	+++		220/130	

Case I: J. W.: The patient was a white male, aged 15, who entered the hospital July 24, 1936. Two weeks before entrance he developed an upper respiratory infection. Three days before coming to the hospital swelling of the face and ankles was noticed. At the same time headaches with nausea and vomiting occurred.

Physical examination revealed a well-developed, well-nourished, white boy. His face was pale and edematous. The heart, lungs and abdomen were negative. There was a mild pitting edema of the extremities. The blood pressure was 150/80. The urine was scanty and highly colored. The specific gravity was 1.027; albumin; and there were many red blood cells, white cells and granular casts in the sediment. The blood counts were normal and the Wassermann and Kline tests were negative. The spinal fluid pressure was 200 mm. of water. The eye ground examination revealed a mild albuminuric retinitis. Determinations of the blood proteins showed the following: total protein 7.37, albumin 4.4, globulin 2.97 gm. per cent. The N.P.N. of the

TABLE 1

DATA ON A PATIENT WITH ACUTE GLOMERULAR NEPHRITIS SHOWING THE LACK OF RELATIONSHIP BETWEEN EDEMA AND PLASMA PROTEINS

Name	Date	Age	URINE					Blood Pres.	Alb. Glob. Ratio	Edema	NPN	Remarks	Outcome
			Alb.	Spec. Grav.	RBC	WBC	Casts						
J. W.	7/24	15	++++	1.027	Very many	Many	Many gran.	150/80	TP—7.37 Alb—4.4 Glob—2.97	++	70.5	Diag. acute glom. neph.	
	7/26		++++	1.023				190/150	TP—5.48 Alb—3.25 Glob—2.23	++++	60.0	Convulsions	
	7/28		++++	1.024	Very many	6–7	None	155/100	TP—5.28 Alb—3.12 Glob—2.16	++++	54.0		
	7/30		++++	1.026				140/98	TP—5.23 Alb—2.98 Glob—2.06	++++	46.1		
	7/31		++++					152/100	TP—4.95 Alb—2.89 Glob—2.66	++++	40.9		
	8/1		++++	1.040	Many	Occ.	None	140/96	TP—4.97 Alb—2.94 Glob—2.06	+++	38.3		
	8/10		+++		Many	Occ.	Occ.	140/84	TP—5.08 Alb—2.80 Glob—2.28	+++			Improved

blood was 70.5, creatinin 2, urea nitrogen 50.4, and cholesterol 250 mg. per cent. Two days after admittance into the hospital the patient developed convulsions and became more edematous. About that time the total proteins began to decrease and within the next week had dropped to the following figures: total protein 4.9, albumin 2.9, and globulin 2.0 gm. per cent. It is seen now that there is a correspondence between the presence of edema and the plasma protein deficit which did not prevail in the very early stages of the disease After August 10, the patient made a satisfactory and complete recovery.

It has been customary to classify chronic nephritis after the fashion of Christian[16] into chronic nephritis with and chronic nephritis without edema. Chronic nephritis with edema is a disorder which is characterized by advance changes in the epithelium of the tubules. These tubular changes correspond to those seen in lipoid nephrosis so that for clinical purposes the edema of lipoid nephrosis and that of chronic glomerular nephritis with the nephrotic syndrome are explained upon the same pathological basis. In these chronic forms of edema there is a close parallelism between the intensity of edema and the degree of protein deficit of the blood plasma.

In case 2 of chronic glomerular nephritis with the nephrotic syndrome it is shown that edema came and went during the course of the disease which lasted for months, and, in table 2, I have tried to emphasize the fact that there is a fairly constant relationship between the heavy albuminuria, the plasma protein deficit and the presence of edema.

Case 2: H. R.: The patient was a white male, aged 30, who entered the hospital July 11, 1930, after an illness of four months. He had generalized anasarca. He complained of weakness, loss of appetite, an occasional headache, and of dyspnea on exertion. Physical examination revealed a well-developed white male who had a decided waxy color. The heart and lungs were negative. The blood pressure was 145/90. Urinalysis showed a specific gravity of 1.017, albumin, a few red blood cells, 2–3 white cells and 4–6 granular casts. The blood count was normal and the Wassermann and Kline were negative. Determinations of the blood proteins showed the following: total protein 4.52, albumin 2.84, globulin 1.68 gm. per cent. The eye grounds were essentially normal and the blood chemistry on entrance was normal. Many double refracting lipoids were found during the course of the examinations of the urine.

About two weeks after entrance the edema disappeared. During the next few months the patient had transient edema. In January, 1931, he developed pneumonia from which he made a complete recovery. During the next year, 1931, edema came and went. The first of January, 1932, he became very edematous and developed a marked decrease in the output of urine. Later on the edema disappeared and the patient was discharged in June, 1932, edema-free. His blood pressure was 100/70. The urinary sediment contained an occasional red and several white blood cells and there was albumin.

All patients with chronic glomerular nephritis do not have edema, and such edema-free patients have chronic glomerular nephritis without the advanced degenerative changes in the tubular epithelium. It may be that the difference between lipoid nephro-

TABLE 2

A CASE OF CHRONIC NEPHRITIS WITH THE NEPHROTIC SYNDROME SHOWING THE FAIRLY CONSTANT CORRESPONDENCE BETWEEN EDEMA AND PLASMA PROTEIN DEFICIT

Name	Date	Age	URINE					Blood Pres.	Alb. Glob. Ratio	Edema	NPN	PSP	Remarks	Outcome
			Alb.	Spec. Grav.	RBC	WBC	Casts							
H. R.	7/15	30	++++	1.017	2-3	2-3	2-3 hyaline & gran.	180/90	TP—4.52 Alb—2.84 Glob—1.68	++++	26.6	60/35	Diag. chron. glom. neph.	
	7/22		++++	1.015	5-6	0	Very occ. gran.	176/80	TP—7.94 Alb—4.64 Glob—3.34	0	58.8	30/25		
	9/2		++++	1.011	0	0	0	126/82	TP—3.23 Alb—2.2 Glob—1.03	+++	30.0	45/30		
	2/3		++	1.007	0	4-6	Occ. hyaline & gran.	95/65	TP—5.03 Alb—4.46 Glob—.57	0	28.3	40/20		
	7/14		++++	1.010	0	1-2	Occ. gran.	118/60	TP—3.38 Alb—1.98 Glob—1.4	++	32.7	20/10		
	12/22		++++	1.023	0	4-6	Many gran & hyaline	120/90	TP—2.79 Alb—1.90 Glob—.89	++++				
	6/7		++++	1.007	0	0	0	100/70	TP—5.82 Alb—3.04 Glob—2.78	0	36.1	45/30		Pt. expired after discharge.

sis and chronic glomerular nephritis is one of degree rather than of type. For in the edematous nephritic there are histological features of lipoid nephrosis added to those of chronic glomerulitis. In edema-free patients there is little or no lipoid degeneration of the tubules. In such cases albuminuria is not heavy and edema is absent. In 1927 a number of such cases were reported by myself.[17]

It is in cases of so-called genuine lipoid nephrosis that the most marked correspondence exists between the fall in plasma proteins and the onset of edema. In lipoid nephrosis there is an advanced lipoid degeneration of the tubular epithelium. The glomeruli show little or no evidence of proliferation of cells or exudation; only degeneration is present. Clinically there is a heavy albuminuria with doubly refracting lipoids in the urine, extensive edema, marked hypercholesterolemia, an absence of hypertension, nitrogen retention, uremia, and lastly a profound plasma protein deficit with inversion of the albumin globulin ratio. In such cases Starling's theory appears to be adequate for the complete explanation of the edema syndrome. The following case is one of genuine lipoid nephrosis and the detailed data are shown in table 3.

Case 3: D. S.: The patient was a white female, aged 7, who was admitted to the hospital December 19, 1935. One week before entrance she developed an acute upper respiratory infection which was followed by swelling of the face, abdomen and extremities. A year and a half ago she had a similar attack which subsided but no record was kept at that time. Both parents have chronic nephritis. The patient had whooping cough, pneumonia, chickenpox and measles.

Physical examination revealed a well-developed, well-nourished girl who was very edematous. The heart and lungs were negative. The blood pressure was 120/60. Urine examination on entrance showed a specific gravity of 1.035, albumin, 1–2 red blood cells, 4–8 white cells and an occasional granular cast, and 6–8 hyaline casts per h. p. f. The blood counts were normal and the sedimentation rate was very rapid. Blood plasma determinations were done with the following results: total protein 3.9, albumin 1.49, globulin 2.44 gm. per cent. The eye grounds were normal. The usual blood chemical determinations showed normal figures except for the cholesterol content which was 342.4 mg. per cent. During the course of treatment the fluid output was low but it gradually increased. The edema disappeared and the patient's condition was satisfactory for discharge six weeks after entrance.

Finally it must be borne in mind that in acute nephritis, in chronic nephritis, and in

arteriosclerotic Bright's disease a form of edema may develop independent of the renal condition. At times the edema in these cases is due to heart failure. In such instances the edema seems independent of any chemical changes in the blood stream and dependent upon pressure changes in circulation. There are investigators who believe that one factor, namely lowered osmotic pressure of the blood due to protein deficit, plays a role in the causation of all edemas of Bright's disease including the cardiac edemas often seen. Thomson,[15] Payne and Peters,[18] and Iverson and Nakazawa[19] all believe that in cardiac edema there is a lowered colloid pressure. On the other hand, Moore and Van Slyke[12] do not think this is so.

TABLE 3

DATA ON A CASE OF LIPOID NEPHROSIS

Name	Date	Age	URINE					Blood Pres.	Alb. Glob. Ratio	Edema	NPN	PSP	Remarks	Outcome
			Alb.	Spec. Grav.	RBC	WBC	Casts							
D.S.	12/21	7	++++	1.025	1-2	3-4	0	122/68	TP—3.93 Alb—1.49 Glob—2.44	++++	33.4	55/25	Diag. lipoid nephrosis	
	1/21		+++	1.015	1-2	2-3	0	100/60	TP—5.63 Alb—3.02 Glob—2.61	+	30.7	60/20	Blood cholesterol 390 mg.	
	2/18		++++	1.015	2-3	0	0	105/70	TP—4.34 Alb—2.04 Glob—2.30	0	27.7		Renal tests wei normal	
	3/3		++	1.020	2-3	0	0	100/80	TP—5.15 Alb—2.80 Glob—2.35	0	28.2	60/15		Pt. discharged, improved

Treatment of Renal Edema

Treatment of renal edema requires a knowledge of the pathological physiology of edema formation. If one has in mind what it is he wishes to accomplish, treatment becomes much easier. From the above brief discussion it is obvious that all cases of renal edema do not fit the same pattern. The treatment of cases may also be very unlike. There appear to be two main types of renal edema: (1) the acute form as seen in acute glomerular nephritis and (2) the chronic form which occurs as a feature of lipoid nephrosis and in chronic nephritis with secondary lipoid nephrosis. For the purpose of completeness one may add the third type of the cardiac edema which develops as a sequence of chronic nephritis or of renal arteriosclerosis when the heart fails.

Our knowledge of the pathogenesis of edema in acute nephritis is less precise than that of chronic nephritis. In the acute phase the cause of edema seems to be interlocked with the capillary changes in the kidney and throughout the body. An increased permeability of the capillary wall seems to be the most important factor involved. The edema appears to be a part of the main disease and not a complication or a sequel as it is in the chronic type. That these types are different is supported to some extent by the fact that edema fluids differ in composition. In the acute form there is a fluid of higher specific gravity containing more cells and protein than the watery fluid seen in nephrosis. The edema of acute nephritis does not call for any energetic therapeutic measures. When the acute inflammation of the kidney clears up the edema also disappears. The treatment of the edema is the treatment of the patient with acute nephritis. Measures are adopted which aid renal healing and protect the patient from complications rather than those aimed at the edema itself. One should be mindful of the fact that the heart may fail in acute nephritis and cause edema of cardiac origin.

As a rule the edema of acute nephritis is mild as compared to the generalized anasarcas seen in the chronic type. Rarely is it necessary to resort to mechanical removal of the fluid in acute types. The therapeutic

measures in the treatment of acute edema may be outlined as follows:

1. The measurement of the fluid intake and output is required. Opinion differs over the question of the degree of limitation of fluid intake in the acute phase. Observations show that this depends upon individual cases. In certain cases there is a profound oliguria or even an anuria. In such cases the non-protein nitrogen and creatinin are seen to rise rapidly and the patient may be threatened with genuine uremia unless diuresis is established. In such cases it seems illogical to limit fluids on account of the presence of edema, for the edema, unlike uremia, does not embarrass the patient to any great extent and in itself is not a matter of great concern. Therefore, in such cases the edema is disregarded and fluids are administered in quantities of from 1500 to 2000 cc. a day. On the other hand, should the edematous patient show no elevation of non-protein nitrogen or of creatinin and have oliguria of a mild form, then the restriction of fluids for the prevention of further edema may be practiced. The entire fluid intake a day may be limited to 1200 cc. in such instances.

2. In all cases of edema, salt is restricted. As a rule the average diet without the addition of salt contains about four grams a day. Adequate salt restriction may be accomplished by the withdrawal of salt shakers and by cooking food without the addition of salt.

3. Since acute nephritis is a disease of comparatively short duration food may be reduced to a minimum for several days without harming the patient's general health. Milk is often well tolerated and may be given in amounts from 800 to 1000 cc. a day.

4. Diuretics are usually not given to patients with acute nephritis. Alkaline fruit juices and alkalis such as sodium citrate, lemonade or imperial drink (one teaspoonful of tartar to one pint of lemonade) accomplish as much diuresis as is necessary. There is no diuretic which will have a favorable influence on the tender, inflamed kidney. Water itself seems to be a most satisfactory and harmless diuretic.

5. Purgation is often practiced and I believe it is a very good means of reducing the body fluids. Saline cathartics have the best action. I often use compound jalap powder; four grams in one half cup of warm water may be repeated daily until good results are obtained.

6. Mechanical removal of fluid is seldom required in acute nephritis because the accumulation of fluid is usually not extensive enough to require such measures.

7. If anuria persists for several days decapsulation may be done to set up diuresis.

8. Above all the edematous patient must be kept warm and protected from further exposure, as an added chill or infection may be harmful.

One may apply therapeutic measures in chronic nephritic edema based upon our knowledge of pathologic physiological changes. At present attention is focused upon the depletion of blood proteins as the main cause and therefore treatment is aimed at raising colloidal osmotic pressure. Measures that are usually employed in the treatment of chronic edema are given below seriatim:

1. The intake of fluid should be measured and limited to 1200 to 1500 cc. a day.

2. The actual amount of fluid eliminated each day should be measured.

3. A salt-free diet should be enforced.

4. In view of the fact that the plasma protein is low it is customary to administer a diet high in protein so that in place of giving 40 or 50 grams of protein a day the amount is raised to well over 100 grams. How efficient such a diet is in increasing plasma protein is undecided at the present time. Keutmann and Bassett[20] have shown some evidence that feeding high protein diets does not increase plasma protein. Peters[21] emphasized that the origin of serum proteins is entirely obscure. We must be mindful of the fact that high protein diet may lead to hyperphosphatemia, increase acidosis and augment the edema thereby making worse a condition we sought to improve.

5. Mild diuretics such as theobromine and diuretin in addition to sodium citrate and other alkalis may have beneficial action. Stronger diuretics such as salyrgan have no

place in the treatment of renal edema. I have seen the use of salyrgan followed by unfavorable results on several occasions.

6. When ascites or thoracic effusion become very marked the mechanical withdrawal of fluid is recommended.

7. At times the skin over the legs becomes so tense that there is danger of cracking; in such cases Southey tubes may be used with good results.

One of the chief reasons for control of edema is that its presence reduces tissue resistance and often is followed by pyogenic infections such as peritonitis, pneumonia, empyema and erysipelas.

In the treatment of chronic edema of lipoid nephrosis attempts have been made to increase the osmotic pressure of the blood plasma by injections of gum acacia. This procedure was sponsored particularly by Hartmann[22] and his associates. These workers reported very favorable results with this treatment. Other workers, however, have not had such good results. Rennie[14] reported severe reaction following the injection of acacia and, of course, did not repeat the treatment. Dick, Warweg and Andersch[23] report that acacia used to combat the edema of nephrosis is not only useless but at times positively harmful. They gave it intravenously to patients in doses of one gram per kilo of ideal body weight. In their cases the liver became enlarged and tender, the serum protein, especially the albumin fraction, dropped and stayed dangerously low and increased only slowly after the treatment was stopped. In two of the four patients acacia was found in deposits of edema fluid. In view of the later reports and my own experience with acacia, I feel that its further use in the treatment of edema must be watched carefully.

Summary

1. The present ideas concerning the pathogenesis of renal edema are based upon pathologic physiological changes in the fluids and tissues of the body rather than upon pathological changes in the kidneys as was done formerly. The substitution of the modern ideas for the older pathologic anatomical views, has aided in the treatment of renal edema.

2. I have tried to show by discussion and case reports that all renal edemas are not caused by the same mechanism. Renal edema may be classified into the acute and the chronic types. In chronic nephritic edema there is a plasma protein deficit and the edema appears to be caused by this deficit. In the early stages of acute nephritis there is no such plasma protein deficit and the edema seems to depend upon the increased capillary permeability.

3. Aside from plasma protein deficit there is another factor of great importance in the formation of renal edema; this factor is sodium chloride. Sodium chloride consumption causes edema providing that the plasma proteins have been considerably reduced. There are periods in the course of nephritis when the plasma protein reduction alone seems inadequate to provoke the edema and at this period edema may be caused by the addition of salt to the diet and may be cleared up by the withdrawal of salt.

4. The reason why salt acts in this manner is unexplained. Furthermore we know very little about the relationship of other minerals to edema formation.

5. The chief point I wish to make is that with our knowledge of the relationship of plasma protein deficit, salt consumption and edema, our therapeutic measures have been more logical and more satisfactory.

6. Finally it is obvious that many gaps exist in our knowledge of renal edema, yet important advances have been made. More progress may be looked for.

BIBLIOGRAPHY

1. Warfield, L. M.: Edema of obscure origin with remarks on general treatment. Wisconsin M. J., **35**:95 (Feb.) 1936.
2. Bright, R.: Cases and observation illustrative of renal disease accompanied with the secretion of albuminous urine. Guy's Hosp. Rep., **1**:338, 1836.
3. Blackall, J.: Observations on the nature and cure of dropsies. 1st American edition. Philadelphia, James Webster, 1820.
4. Bartels, C.: Clinical studies of the different forms of chronic diffuse kidney inflammations. Leipzig, 1871.
5. Cohnheim, J., and Lichtheim, L.: Hydremia and hydremic edema. Virchows Arch., **69**:106, 1877.
6. Epstein, A. A.: Further studies on the chemistry of blood serum. J. Exper. Med., **17**:444, 1913.
7. Leiter, L.: Experimental edema. Proc. Soc. Exper. Biol. & Med., **26**:173, 1928.
8. Barker, M. H., and Kirk, E. J.: Experimental edema (nephrosis) in dogs in relation to edema of renal origin in patients. Arch. Int. Med., **45**:319, (March) 1930.

9. Widal, F.: The renal retention of chlorides, and the pathogenesis of the edema of Bright's disease. Bull. et mém. Soc. méd. d. hôp. de Paris, p. 990 (July 31) 1903.
10. Widal, F., and Lemierre: Pathogenesis of certain edemas of Bright's disease. The action of ingested sodium chloride. Bull, et mém. Soc. méd. d. hôp. de Paris, p. 678 (June 12) 1903.
11. Widal, F., and Javal: The cure of dechloruration. Its action on edema and on albuminuria at certain periods of parenchymatous nephritis. Bull. et mém. Soc. méd. d. hôp. de Paris, p. 733 (June 26) 1903.
12. Moore, N. S., and Van Slyke, D. D.: The relationships between plasma specific gravity, plasma protein content and edema in nephritis. J. Clin. Investigation, 8:337, (April) 1930.
13. Krogh, A., Landis, E. M., and Turner, A. H.: Movement of fluid through human capillary wall in relation to venous pressure and to colloid osmotic pressure of the blood. J. Clin. Investigation, 11:63 (Jan.) 1932.
14. Rennie, J. B.: The pathogenesis and treatment of renal edema. Tr. Roy. Med.-Chir. Soc. Glasgow 19:57 (May-June) 1935.
15. Thomson, W. A. R.: Plasma proteins and cardiac edema. Quart. J. Med., 3:578 (Oct.) 1934.
16. Christian, H. A.: Types of nephritis and their management. J.A.M.A., 102:169 (Jan. 20) 1934.
17. Murphy, F. D.: Chronic nephritis with and without edema: a study of cholesterol in these conditions. J. Clin. Investigation, 5:63 (Dec.) 1927.
18. Payne, S. A., and Peters, J. P.: Plasma proteins in relation to blood hydration; serum proteins in heart disease. J. Clin. Investigation, 11:103 (Jan.) 1932.
19. Iverson, P., and Nakazawa, J.: Pathogenesis of edema. Ugesk. f. laeger, Copenhagen 89:640, 1927.
20. Keutman, E. H., and Bassett, S. H.: Dietary protein in hemorrhagic Bright's disease; II the effect of diet on serum proteins, protein-uria and tissue proteins. J. Clin. Investigation, 19:871 (Nov.) 1935.
21. Peters, J. P.: Body water. The exchange of fluids in man. p. 27, Baltimore, Md., Charles C. Thomas, 1935.
22. Hartmann, A. F., Senn, M. J., Nelson, M. V., and Perley, A. M.: The use of acacia in the treatment of edema. J.A.M.A., 100:251 (Jan. 28) 1933.
23. Dick, M. W., Warweg, E., and Andersch, M.: Acacia in treatment of nephrosis (in children). J.A.M.A., 105:654, (Aug. 31) 1935.

II. Nephritis from the Standpoint of the Insurance Companies*

By D. E. W. WENSTRAND, M. D., and R. W. BENTON, M. D.
Milwaukee

CLINICALLY and pathologically several forms of nephritis are described, but insurance companies have not the data to differentiate, and, therefore, are forced to consider nephritis as an entity. Regardless of type, the presence of a kidney impairment constitutes a bar to acceptance at standard rates and has an unfavorable influence on mortality.

The importance of nephritis to life insurance companies is indicated by many detailed statistical studies made by individual companies, and also on three occasions by combinations of many companies, all of which show remarkable uniformity as to results. In one analysis of 1,100,000 policies, with 41,000 deaths, it was found that nephritis caused five per cent of the deaths. The Northwestern Mutual Life Insurance Company has data on 150,423 deaths from 1858 to January 1, 1936, in which nephritis is given as the cause in 9,135 cases, or 6.07 per cent. During the year 1935, 196 members died of this disease, a ratio of 3.2 per cent. In this group the insurance was in force for an average of 22.7 years. The apparent decrease in nephritis as a cause of death is probably due to more accurate classification.

In the selection of risks, the problem of nephritis is approached from two broad angles: one, the history given by the applicant or obtained from the family physician; and two, the laboratory findings at the time of examination. In regard to the history, the Company is obliged to accept the statement of the applicant or his physician; it is impossible to make a critical analysis of the correctness of the diagnosis submitted. Much more definite, however, is the evidence obtained on examination.

The urinalysis for insurance is simple. Purposely, the most sensitive tests are not used, but only such as can be satisfactorily employed in the average doctor's laboratory. These are usually the determination of the

* From the Medical Department of The Northwestern Mutual Life Insurance Company. Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, Sept. 1936.

specific gravity, and tests for albumin and sugar. Only in certain cases is microscopic inspection of the sediment for casts and red and white blood cells carried out. The companies are fully aware that greater refinement in diagnosis is possible, but such apply rather to the treatment and management of the disease than to the selection of risks where the ordinary tests may be depended upon to rule out the impaired lives.

It is our purpose to touch only in a general way upon the relation which albumin and casts, found in the urine of presumably healthy individuals, bear to mortality ratios of actual to expected deaths. In the first place, it should be said that the experience is satisfactory where albumin is found only once and subsequent specimens are negative. The results of the last combined investigation, including thirty-nine companies and 1,100,000 policies, completed in 1929, namely, the Medical Impairment Study, have been analyzed recently by Dr. F. C. Evers, medical director of the New York Life Insurance Company, and briefly may be summarized as follows:

Where albumin was found intermittently in amounts not over 50 milligrams per 100 cubic centimeters, the ratio of actual to expected deaths was 129 per cent. Amounts 51-100 milligrams showed a mortality of 150 per cent, while over 100 milligrams increased the mortality to 307 per cent of the expected. Where the impairment was found constantly, the mortality ranged from 173 per cent for the small amounts of albumin up to 298 per cent for the heavy trace. Furthermore, the death rate from Bright's disease in these groups was four times the normal. It should also be noted that the relative mortality became higher as the age at entry increased up to fifty years and then there was a remission.

In insurance practice, two types of casts, the hyaline and the granular, are distinguished when possible. It is generally found that the granular casts have a more serious prognostic significance, but hyaline casts are the ones usually found in samples which come to our laboratories. The number and the frequency of casts have a bearing on the mortality. In the standard group, showing 555 actual deaths with 581 expected, where casts were found on one examination, a relatively low mortality was obtained during the first ten years of exposure, while during the 11–20 year period the mortality was considerably higher. In this study the age of the insured had apparently little effect on mortality, but the average age at entry was higher than usual, namely, 48 years. In the substandard, the mortality averaged 153 per cent and was excessive at all ages and for all periods of exposure.

The Northwestern Mutual Life Insurance Company has made a careful study of more than 3,000 individuals, accepted during a twenty-five-year period ending in 1930, carried to the anniversaries in 1931, where hyaline casts were found on Home Office urinalysis. The mortality was fairly satisfactory where the casts were present accidentally or intermittently; but if they were found almost constantly, that is, in two out of two or three tests, the mortality was nearly doubled and was practically the same both below and above age forty. The chief causes of the 262 deaths in this group were heart disease, cancer, and nephritis, in this order. Dr. William Muhlberg, vice-president and medical director of the Union Central Life Insurance Company has reported a similar experience with hyaline casts.

The companies which do substandard business have found from experience that an appreciable increase in mortality is to be expected where hyaline casts are found intermittently to the extent of 6–10 a slide. If over 10 a slide are present, the mortality is increased 55–100 per cent. With granular casts the expectancy is about the same, except that 1–5 granular casts a slide, present constantly, increase the rate up to 50 per cent.

Role of Examining Physician

In this problem of nephritis, the role of the examiner is all important, for the medical department depends upon him to secure the history not only of a possible previous nephritis, but also of prior albumin or casts. The acceptability of the risk depends upon the lapse of time since the kidney impair-

ment, its duration and cause, and the length of time that the urine has been normal. If albumin or casts have been found recently, further tests will be required, usually in the Home Office laboratory, to establish the transitory character of the abnormal findings. More elaborate tests, such as kidney function studies, are seldom required, because when such are needed it is usually an indication that the risk is questionable, to say the least.

We should like to emphasize, also, the importance of the family physician in relation to the insurance history of his patient. Much depends upon the accuracy of his diagnosis, for risk selection requires facts. Inform your patient of the nature of his trouble at the conclusion of his illness in sufficient detail so that he may be in a position to give an accurate history. Urge him to tell the life insurance examiner the full story, no matter what the illness may have been. Only in this way can the examiner furnish a clear picture to the insurance company, and only when the facts are in its possession can the company deal fairly with its applicants and policyholders. It is self-evident that accurate histories, competent examinations, and careful selection of risks will improve mortality experience and lower the cost of insurance.

III. The Use of Cyanates in the Treatment of Hypertension*

By M. HERBERT BARKER, M. D.
Chicago

DANGEROUS elevations of blood pressure may be found in a number of conditions. A careful study of the individual problem may reveal it to be associated with glomerular nephritis, lower urinary tract obstructions, a basophilic adenoma of the pituitary, a suprarenal tumor or a nervous and emotional state. However, the very great percentage of cases exist without any known organic background and they are called essential hypertensives for lack of a better term. Although the hereditary background, nervous strain, and endocrine dysfunctions are, no doubt, great factors in the development or aggravation of this disorder, the etiology is unknown. Therapy directed at the nervous and endocrine states has been attended by an occasional good result, but it may be stated that the majority is not sufficiently benefited to notably change the course or outcome of this disease. It is true that we all know of an occasional patient who has had an extremely high pressure for many years without symptoms or apparent shortening of his life. These cases are exceptions and our attention must be properly focused upon the problem as a whole.

The mortality of hypertension is formidable and it demands the sincere and sane interest of all engaged in the practice of any branch of medicine. High blood pressure is responsible for some 75% of all cardiorenal-vascular diseases. These human ailments of heart failure, cerebral hemorrhage, thrombosis and Bright's disease account for the deaths of over 500,000 people in this country annually.[1] This is more than four times the number of people who are destroyed by cancer and twenty times that claimed by diabetes and tuberculosis. The greatest percentage of these unfortunate people are over 40 years of age, many of whom are at their prime of life and they make up a fair per cent of our most dynamic and productive citizens.

Since the days of Claude Barnard[2] the cyanates have been known to reduce the blood pressure in some persons, and the literature contains many reports both supporting and denouncing this drug as a means of therapy.[3,4,5] A careful review of the subject and some three years' clinical experience

* From the Renal Vascular Clinic of Northwestern University and Medical School and the Medical Wards of Passavant Memorial Hospital. Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, Sept., 1936.

with potassium and sodium sulphocyanate indicated to the essayist that every patient responds very individually to a given amount of the drug.

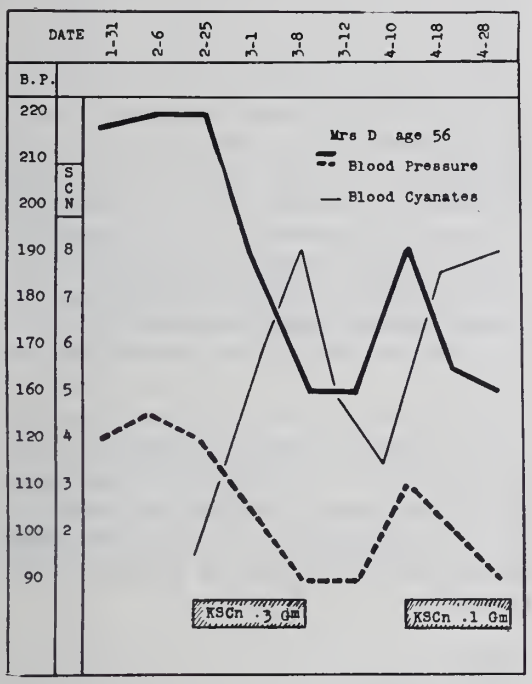


Chart 1. Female, age 56, known hypertension for at least two years. Symptoms of throbbing headaches, insomnia, heart consciousness and emotional instability. Potassium sulphocyanate .3 gram daily for ten days was associated with drop in blood pressure and relief of symptoms. A maintenance dose of .1 gram daily was found to be adequate for the next several weeks.

A technique for the determination of the cyanate content of the blood was developed and it has made possible the more direct control of the necessarily individual oral dosage. This method for the determination of the cyanate content of the blood is quite simple and it was described on page 763 of the Journal of the American Medical Association of March 7, 1936. If the blood pressure is to be reduced, it has been found that enough of the potassium sulphocyanate must be given to maintain the cyanates in the blood at 6–12 milligrams per 100 cc. When such levels are maintained, a decrease of the blood pressure of 50 to 100 millimeters may be expected in about one half of the cases. The dosage required may vary from .3 gram (5 grains) three times per week to .3 gram three times per day. This difference in individual dosage necessary to maintain the proper blood cyanate level seems to be due to the great variation of cyanate excretion in the urine. Space will not permit a review of the background of clinical experiences with the cyanates, but the technique of administration and control, together with the benefits and toxic effects, will be discussed.

The cyanates have been administered to patients with hypertension in the cardio-renal-vascular clinic at Northwestern University Medical School for the past seven years.[6] Symptomatic variations, blood pressure effects and certain blood chemical observations have been correlated with the concentration of the cyanates in the blood. Both sodium and potassium salts have been used and no advantage of one over the other has been noted. The greatest number has been given potassium sulphocyanate, .3 gram in 4 cc. of vehicle (5 grains per dram) once daily for one week. The dosage is usually then reduced to 2 or 3 times per week, until the nature of the patient's response is determined. If a drop of 25–35 millimeters is effected, the medication is continued on this reduced dosage or it may be discontinued. The dosage is continued and increased slowly to 10–14 doses per week of .3 gram if the

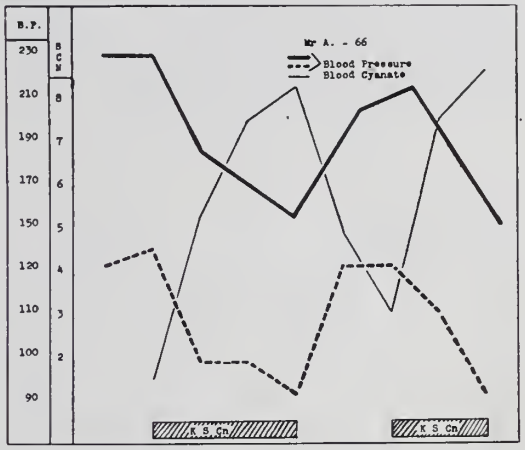


Chart 2. Male, age 66, with hypertension and arteriosclerosis of moderate degree. A cerebral thrombosis one year prior to this study. Note gradual reduction of pressure associated with rise of cyanates in the blood. The dosage of Kscn. has been gradually increased to .3 daily with good control of blood pressure and associated symptoms.

blood pressure has not dropped, unless toxic symptoms are noted or the cyanate content of the blood is over 10 milligrams. The drug has been administered to all ages and not only has it been given to cases of essential hypertension but those suffering from the malignant form, and to some cases of glomerular nephritis with cardiac strain. (Figures I and II).

The cyanates were administered only after several weeks or several months observation in the clinic under dietary, sedative or other forms of therapy. Thus, it was felt that the patients were well enough known to draw conclusions from the results. They were established as carrying systolic blood pressures well over 200 millimeters of mercury. The cases of glomerular nephritis usually ran between 180 and 200 millimeters.

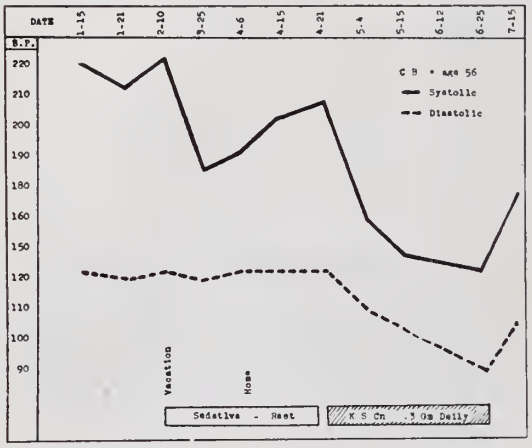


Chart 3. Executive, age 56, with cardiac symptoms of one year. Vacations, rest periods and sedatives gave mild relief. Cyanate administration associated with drop in diastolic and systolic pressure and relief of symptoms.

Taking the group as a whole, slightly more than 50% have shown significant decreases in both the systolic and diastolic blood pressure. These drops of pressure were associated with the elevation of the cyanates in the blood to six or more milligrams per 100 cc. Generally, it may be stated that these blood pressure reductions have been maintained as long as the cyanate level in the blood has been carried between 6–12 milligrams. My longest controlled case is over 7 years. The response in the various groups of cases might be classed somewhat as follows:

1. The group of menopausal and older females showed a quite regular and favorable response. Blood pressures of 220/110 — 240/160 may drop very rapidly so that caution has to be exercised in them. Usually .3 gram once daily has been associated with a fall to 190–200 in seven to ten days' time, if they respond at all. The dosage was then decreased to 2–3 times per week so that the pressure did not fall further for 2–4 weeks. A return or increase of the dosage was watched closely so that a gradual reduction of the pressure to 150–170 was effected. The diastolic often lagged somewhat but a level of 90–100 was possible and seemed desirable. (Fig. 3).

Such reductions were generally very well tolerated and the relief of insomnia, nervousness, headache, irritability, emotional instability, heart strain, nocturia and edema occurred in the majority. A few of this group failed entirely to respond without known reasons.

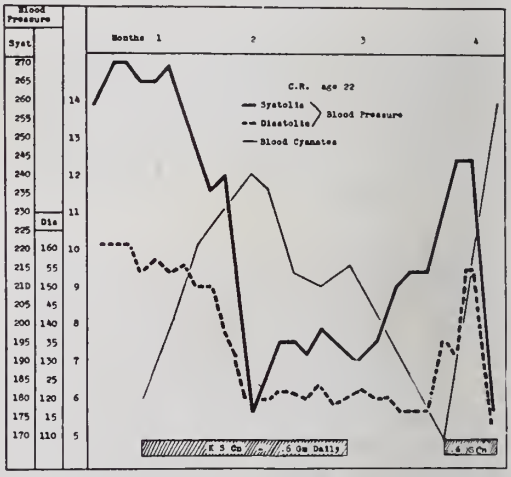


Chart 4. Male, age 22, severe hypertension with riddled eye grounds, and marked urinary findings. A significant decrease in both systolic and diastolic pressure was associated with increase of blood cyanates to 10–14 milligrams per 100 cc. Improvement of eye grounds and loss of urinary findings notable.

2. The so-called malignant forms of hypertension have not been materially benefited. The few cases studied have required larger doses, .6–1.0 gram daily, (10–15 grains) to

keep the cyanates in the blood up to a therapeutic level. This was due to the very great renal clearance of cyanates which was noted in this group. Occasionally their pressure of $\frac{260-280}{150-170}$ was reduced to such level as 220/120 or even lower, 170/110, with great relief of headaches, arrest of hematuria, decrease in albuminuria and clearance of the sediment. Resorption of hemorrhages and exudate in the eye grounds and improvement of vision is associated with such decreases of pressure. (Fig. 4).

Even though the progress of the disease has been delayed or retarded in some cases of apparent malignant hypertension, no benefit comparable to that gained for the essential group has been noted.

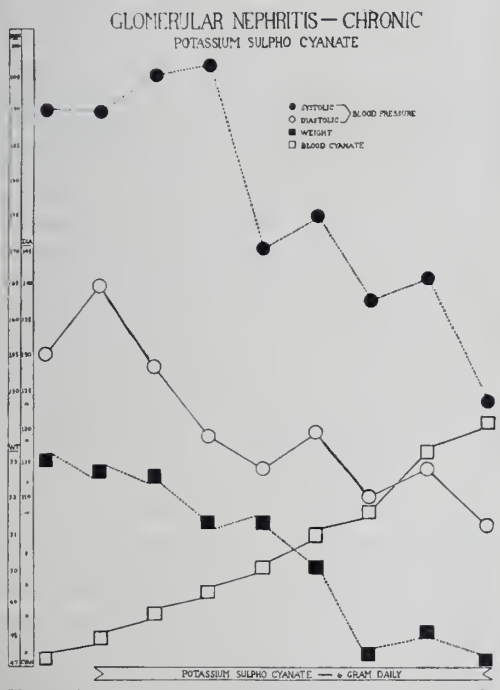


Chart 5. Male, age 23, chronic glomerular nephritis with low renal function, edema, heart strain and gallop rhythm. Kscn .6 daily attended by gradual increase of blood level to 15 mgs. per 100 cc., drop in blood pressure, loss of edema and improved heart function.

3. Hypertension cases of long standing with much arteriosclerosis, both male and female, show a variable response to the cyanates. Some respond as quickly and with as much relief of symptoms as the first group described. Only a few make good improvement, while the greatest number show no benefit and many show only toxic manifestations. It is proper to offer cyanate therapy to these older and arteriosclerotic patients, but they must be given small or infrequent doses and they must be carefully observed.

4. A few cases of chronic nephritis with hypertension have shown satisfactory drops in blood pressure as Goldring has pointed out.[7] Their cyanate clearance has been satisfactory so that the cases tried have been no more difficult to manage than the hypertensives. A gratifying diuretic effect has been noted in several of these patients which was thought to be due to releasing edema by means other than relief of cardiac strain. Much more work is needed on this possible diuretic effect before any frank statement can be made. (Fig. 5).

Toxicity

Toxic manifestations of fatigue, weakness, mental confusion, disorientation and rarely nausea are often encountered. No dangerous symptoms or findings have been met as long as the cyanates in the blood have not increased above twenty milligrams per 100 cc. As a rule, only fatigue is noted, and chiefly in older people. This symptom may be so extremely annoying that it is necessary to discontinue the drug. Smaller doses tried at a later date may well be met with success. Most of the mental symptoms have been met in older patients with arteriosclerosis or in the severe forms at any age. Generally no unfavorable reactions have been noted in people under fifty years of age. Sharp falls of 100 or more millimeters pressure may occur in 4–10 days. Such rapid drops of pressure in people with arteriosclerosis or high serum proteins may suffer cerebral or coronary thrombosis. I have seen such crisis[6] and their danger cannot be over-emphasized. These occurred only when the blood cyanates were 30–50 milligrams per 100 cc. Hence, anticipation of such possibilities in long standing cases will suggest cautious administration at the beginning. An anemia has developed in some cases which is not hyperchromic of hypochromic, but one that seems to be due to the reduction in the total num-

ber of red cells. This is of particular interest and will be reported elsewhere. Five have developed "cabbage goiters," which promptly disappeared with thyroid extract, and two have shown a very mild dermatitis which may or may not have been due to the drug.

Summary

The prevalence and dangers of hypertension must be appreciated and a judicious attitude in the care of these people must be emphasized. A proper reduction of the blood pressure is a most desirable step for their symptomatic care and safety. A satisfactory reduction of the blood pressure may be associated with the maintenance of the cyanate content of the blood at 6–12 per 100 cc. by the proper oral administration of potassium or sodium sulphocyanate. Such reductions may be expected in one half of the cases, and the effect may be continued for several years. Toxic manifestations are common at the beginning of the treatment, but they usually wear away in 2–6 weeks' time. The patient is much relieved symptomatically and there is often a great improvement of his cardiac and renal efficiency. The cyanate content of the blood should not be permitted to rise above 20 milligrams per 100 cc. because of possible vascular collapse and thrombosis.

BIBLIOGRAPHY

1. Dublin, Louis I.: Exhibit, American Medical Assn., Kansas City, Mo., 1936.
2. Bernard, Claude: Lecons sur les effects des substances toxiques et medicamenteuses, Paris, 1857, pp. 354–385.
3. Egloff, W. C., Hoyt, L. H., and O'Hare, J. P.: Observations on thiocyanate in hypertension. J.A.M.A. **96**:1941 (June 6) 1931.
4. Ayman, David: Potassium thiocyanate in the treatment of essential hypertension. J.A.M.A. **96**:1852 (May 30) 1931.
5. Nichols, J. B.: The pharmacologic and therapeutic properties of the sulphocyanates. Am.J.M.Sc. (Nov.) 1925.
6. Barker, M. Herbert: The blood cyanates in the treatment of hypertension. J.A.M.A. **106**:762 (March 7) 1936.
7. Goldring, William and Chasis, Herbert: Throcyanate in hypertension. Arch. Int. Med. **49**:321–329 (Feb.) 1932.

SYMPOSIUM DISCUSSION

Dr. W. D. Coventry (Duluth): These excellent papers on nephritis and hypertension have been most stimulating. Dr. Murphy has with clarity traced the historical developments leading to our present concepts of edema. Dr. Barker has contributed in an important way to this development by his plasmapheresis experiments. Dr. Wenstrand has shown the importance of examination of the urine in estimating mortality from nephritis.

In this discussion I should like to mention briefly just two points. First, is the fact that patients with acute nephritis die of myocardial insufficiency and that the signs of pulmonary edema found in these cases are due to this. This has been pointed out by Volhard. In treating these cases the most important sign to watch is the blood pressure. A rapidly rising blood pressure calls for energetic treatment with venesection, heart stimulants, restriction of fluids and the use of magnesium sulphate and other drugs.

A second point has to do with the dietary treatment of chronic nephritis with edema. Dr. Murphy has mentioned the use of liberal amounts of protein, —over 100 gm. per day, and a salt-free diet. To what extent should salt be eliminated? If we wish to restrict salt, we must not only eliminate the use of table salt in eating and cooking, but also its presence in the food itself. In this regard we must think of butter, bread and milk as containing salt—the latter about 2 gm. per quart.

Recent work by Barker, McQuarrie and others has shown that sodium and potassium have antagonistic effects in controlling the retention of body fluids and on the blood pressure—a high sodium intake increasing the retention of fluid and increasing the blood pressure and a high potassium intake having opposite effects. Lashmet and Newburgh have had good results in reducing nephritic edema with a neutral or acid diet supplemented with acid producing salts. These factors then which alter the reaction of the body or relative concentration of certain ions are of importance in regulating the storage of fluid. My experience with these diets has been limited, however. Spontaneous remissions of the edema in chronic nephritis and nephrosis are common. Therefore one must be cautious in attributing results to the therapy administered.

Dr. D. E. W. Wenstrand (Milwaukee): We purposely made no mention in our paper of blood pressure, because, had we done so, it would have been entirely too long. However in all life insurance studies we try to have only one impairment at a time. Whenever there is increased arterial tension as well as alubumin or casts in the urine the applicant is declined. Our figures have to do with those cases where albumin and casts were found in the urine and where there was no significant increase in the arterial tension. After Dr. Barker's very interesting paper, I feel I should make this explanation.

Dr. Chester M. Kurtz (Madison): I wish to compliment Dr. Barker on his most excellent presentation and on the beautiful and elaborate piece of work he has done on cyanate therapy in hypertension. I think he is conservative in saying only fifty per cent response is made in his group of patients. We have been using the same method in the cardiol-

ogy department in the Wisconsin General Hospital and I am convinced there are more than fifty per cent favorable results. I should say at least seventy-five and perhaps higher.

He referred to renal involvement as no contraindication to the attempt to decrease blood pressure. His chemical investigations and blood studies, I think, have indicated that chronic nephritis is no contraindication to the use of cyanate and in general the kidney function improves under such therapy.

In connection with heart size, we have followed a number of these patients by serial orthodiagrams as the blood pressure has come down, and there is no doubt the heart size does definitely diminish as the blood pressure is reduced. I would hesitate to say this was due to reduction of hypertrophy but in these patients with marked hypertension, both dilatation and hypertrophy are present and it is probably the dilatation which decreases.

The administration of potassium sulphocyanate in hypertension is comparable to that of digitalis in decompensation. The blood cyanate has to be built up to the therapeutic range after which the dose is reduced to a maintenance level. The dose required for each individual patient is probably much more variable than with digitalis and it is necessary to individualize its administration as no two patients react exactly alike. It is essential to determine the tolerance in every case and it is impossible to generalize in this type of therapy.

I might cite one case, that of a man of about 40 who came in with a blood pressure of 240/140 and marked edema from the waist down. Gallop rhythm was present. On potassium sulphocyanate therapy the blood pressure was brought under control, the gallop rhythm disappeared, the edema cleared up and the patient has been back at work every day for the past year and a half.

A number of internists are against the reduction of blood pressure even though it is possible to bring it down. Some of the leading clinicians and physiologists oppose such measures on the basis that reduction of blood pressure may deprive some organ or tissue of its necessary blood supply. The work of Dr. Barker and others who have made similar studies along the same line has definitely indicated, I think, that the results warrant the attempt to control the blood pressure within certain limits, and I believe it is possible to definitely postpone the period of cardiac disability and decompensation which is the inevitable termination in a large percentage of these patients.

Dr. Barker: Dr. Murphy touched upon some important points and I am sure he would have brought out many more had the time permitted.

I wish to thank Dr. Coventry for his discussion. Dr. Kurtz brings out a most important point which I wish to emphasize. In the past we have heard the enlargement of the hearts of hypertensives discussed as "hypertrophy." Obviously, such is not the major cause of enlargement in a large percentage of cases since a rapid decrease in the size of the heart follows the reduction of the blood pressure, which suggests that dilatation must be present. In connection with edema in the chronic nephritic, in the work in our laboratory in the last few years we have brought out some points of the nature of this edema which I think Dr. Murphy wanted me to mention. When the stages of acute nephritis or nephrotic stages have subsided, leaving a badly damaged kidney, contraction with progressive renal failure follows. This results in the well known failure of concentration power, dye and nitrogen retention, acidosis and uremia. The blood pressure increases from 160 to 200 or more and we note a gallop rhythm and edema increases. The edema of this terminal stage is commonly called "nephritic," but many feel that it is largely congestive failure. I am certain that cardiac strain explains some of the edema in many instances and therefore standard cardiac therapy is in order insofar as it can be adapted. However, detailed study of these late stage cases indicate that the edema is more influenced by the mineral retention than simple nitrogen or heart failure although all three factors are involved. Certainly the acidosis as indicated by the symptoms and the falling carbon dioxide is associated with phosphate retention. There are, no doubt, many other undetermined factors. However, when the CO_2 is depressed and the phosphates are increased to 6-7 or 8 milligrams, great benefit comes from correcting the acidosis and clearing the phosphates if possible. This is independent of nitrogen retention or cardiac efficiency. A diet, therefore, low in phosphorus and high in calcium, with calcium carbonate in large doses seems to aid the acidosis and prevent the absorption of phosphorus sufficiently to be a help to these patients. Again, it must be emphasized that when one removes meats from the food of the chronic nephritic, he is then giving an alkaline ash diet. This increases the source of sodium aside from sodium chloride. Sodium increases aggravate the edema and the blood pressure rises. There is an associated decrease in urea clearance and a renal crisis is precipitated. The rigid restriction of sodium, therefore, is desirable. Recent studies in our clinic indicate that the low protein-alkaline ash (high sodium) diet can be used more safely if ammonium sulphate is given in doses of 15 to 30 grains after each meal. The free sulphate ion seems to clear sodium from the body and prevent edema etc., as described. Likewise, some obstinate chronically edematous patients may be freed of their edema by administering $(NH_4)_2SO_4$ in this manner. It must be emphasized that some patients have trouble clearing sulphates as well as phosphates, so that some caution must be exercised.

The Ambulant Treatment of Hernia*

By ARTHUR F. BRATRUD, M. D.
Asst. Prof. Surgery, University of Minnesota, Minneapolis

INTEREST has been manifested at various times in the past to the ambulant treatment of hernia, but it never became popular. As early as 1880, Billroth made the statement that if anyone could obtain a solution that would cause the artificial proliferation of tissue that would be as dense and tough as fascia, the radical cure of hernia would be solved. Apparently Velpeau of Paris must be given the credit for being the first surgeon to use irritants with the idea of producing a proliferation of new connective tissue to obliterate the sac in an inguinal hernia. He reported several cases as being successfully treated by the injection method. In 1842 Heaton in Boston treated a few cases by the use of tincture of iodine. It was not until 1877 that he published a book describing his treatment. Due to the fact that Heaton would not divulge the exact technique to the medical profession, his work never received official recognition. After the publication of Heaton's book, Warren, of Boston, who was associated with Heaton, later published a book on the treatment of hernia. Other men who contributed to the early literature should be mentioned, notably, Schwalbe, Janney, Lannelongue, Ripley, Coe, McDonald and Mayer. On account of the numerous complications, and the fact that the work was not performed by able surgeons, the treatment received a great deal of criticism.

During the past five years we have endeavored to perfect a method to cure herniae by the injection of sclerosing solutions. The purpose of this paper is to present the results of animal experiments as well as the clinical impressions and results obtained from the application of the method to out-patients.

Selection of Cases

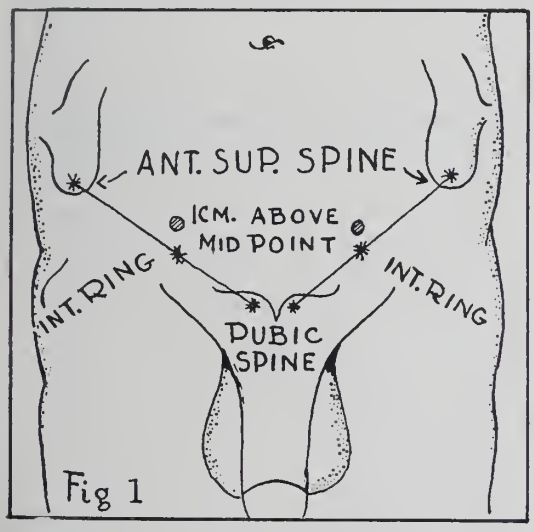
The injection treatment of hernia can be carried out in patients of all ages, provided that the hernia can be completely reduced and held completely reduced by a properly fitting truss during the period of active treatment. Umbilical, indirect inguinal, direct inguinal, and recurrent inguinal herniae give the best results. A few femoral herniae can be successfully treated by this method. Postoperative or incisional herniae usually have adhesions or incarcerated abdominal viscera and no definite sac, and, should not, as a rule, be so treated. Incisional herniae usually have one hernia that can be diagnosed, but have several potential herniae along the line of the incision. When there is a very small incision, a definite opening can be determined, and the contents can be reduced and held reduced by a properly fitting truss, this hernia can be so treated. Herniae associated with an undescended testicle, incarcerated or irreducible, should not be injected on account of the danger of strangulation. These are distinct surgical conditions. Herniae that can be reduced, but where the symptoms cannot be completely relieved by proper application of a truss, are surgical. Sliding herniae should not be so treated. It is very doubtful if a sliding hernia can be held reduced by a truss. Any general surgical contraindication, such as hyperthyroidism and hemophilia, should always be considered a contraindication. Large scrotal herniae give doubtful results, but these cases should be fitted with a truss both before being referred to surgery and after surgical repair. Laying aside the contraindications, we may state that any inguinal hernia and the large scrotal hernia can be treated provided that it is reducible and can be held reduced by a properly fitting truss, and provided there are no surgical contraindications, as mentioned above. If there is any suggestion of an impulse, or the hernia comes down occasionally after fitting of a truss, the case is surgical. Although a few femoral herniae have been treated with good results, I believe that there are liable to be complications, especially in large herniae. Several epigastric herniae have been treated with good results. Very

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, Sept., 1936.

often in femoral, umbilical or epigastric herniae, there is a fat pad in the sac. Application of a truss in these cases causes pain. These cases should not be treated unless there is absolute and complete relief of symptoms. Patients should be checked for urinary obstruction and if present they should be fitted with a truss but not treated until the condition is relieved.

The Truss

To begin this work, it is absolutely necessary to know how to fit a truss so as to hold the hernia reduced. By holding the hernia reduced it keeps the wall of the sac in direct apposition so that when fibroblastic tissue begins to form, the sac is completely obliterated by the new fibroblastic tissue. Should any abdominal viscera be retained within the sac it would be impossible to effect a cure, as any straining would force the contents further down, separating the walls of the sac.



The location of the internal inguinal ring, which is approximately 1 cm. above the midpoint between the anterior superior spine of the ilium and the spine of the pubis. This varies according to the size of the hernia, so that in a very large inguinal hernia, where the defect in the transversalis fascia is greater, the ring will extend lower. This location is above the line between the two spines and not along the line.

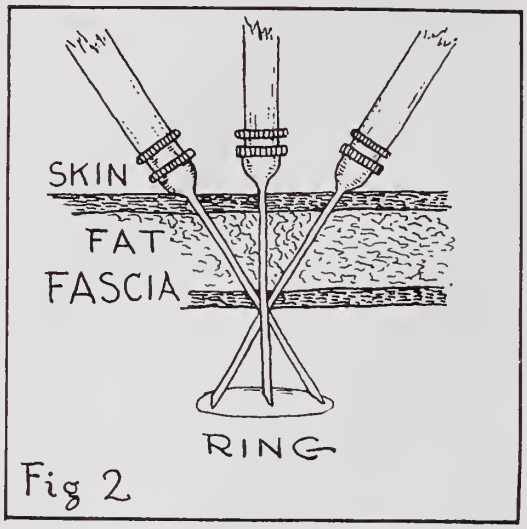
Any type of truss can be used provided it holds the contents within the abdomen. For a single hernia a spring type of truss is more comfortable than a band type of truss, for it does not have a tendency to move when the thighs are brought forward. A spring type of truss can be fitted to double herniae, although a band type of truss usually gives better results. For umbilical herniae, the best form of truss is a hard pad which fits into the depression and is held in place with an elastic bandage wrapped around the body several times. There should be two thin plates over the pad that fits into the depression. The first plate should come to the inner edge of the rectus abdominis muscle, and the outer plate should come to the junction of the outer and median third of the muscle. This is a definite improvement over any previous truss or binder used for this type of hernia.

Measurements for trusses are taken directly around the body at the level of the hernia, or two centimeters below the crest of the ilium down to the symphysis pubis. Trusses should always be worn a sufficient length of time so that the soreness which results after first applying the truss is completely relieved. With larger herniae it is advisable to wear the truss a longer period of time, even as much as a month or six weeks, before starting treatment. Patients are advised to wear a truss both day and night during the period of treatment, and as long as a month after the period of treatment is over. An elastic truss is more comfortable while lying down than any other form. Trusses, when properly fitted, permit the patient to engage in almost any form of exercise or work. They are usually fitted too low, and when so fitted very often give relief, but do not hold the contents of the hernia reduced. They cause the hernia contents to press outward against the fascia of the external oblique, and a resultant fraying or thinning out of the fascia, as well as an enlargement of the defect in the transversalis fascia. Very definite instructions should be given patients in regard to proper fitting and wearing of a truss, especially so in cases of loss of weight.

Technique

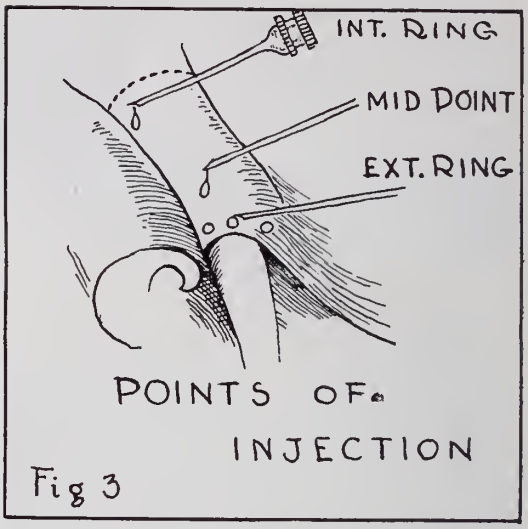
Before treating any patients, colored novocain solution was used to inject the internal inguinal ring, and it was surprising to note how the solution could be deposited around the internal inguinal ring with the technique

to be described. The technique for treatment where the Thuja mixture or Mayer's solution is used, is to begin with two to five drops of Thuja mixture, injecting at the internal ring as described in the sketch. Not over eight minims should ever be used at one



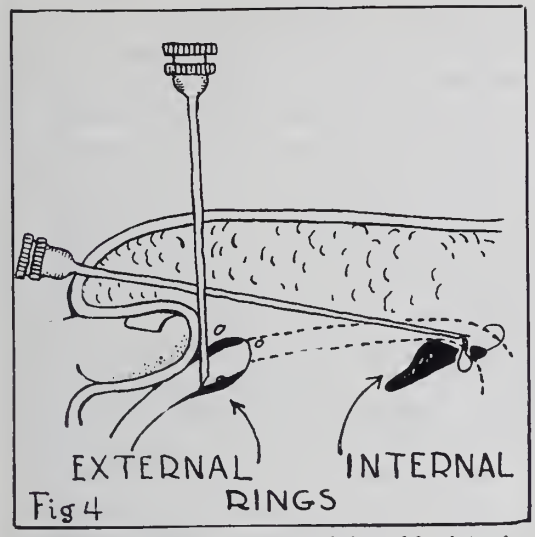
The injection of the internal inguinal ring. The needle is introduced directly through the skin, fat and fascia of the external oblique muscle. As the needle penetrates the fascia, there is a distinct "give" feeling. Very little experience is needed to determine this location. As the needle is introduced slightly further, depending upon the thickness of the abdominal wall, it will approach the region of the internal inguinal ring. When the needle is in the proper location, the syringe can be rotated in a circle, thus giving free rotation of the tip of the needle. This can be very easily demonstrated by the injection of colored novocain solution, preparatory to operating upon a hernia.

injection. Injections are made about twice a week, depending upon the reaction of the individual. Should there be much reaction, then the duration of time between the injections is lengthened. After several injections at the internal ring, there is usually sufficient plastic exudate so that the hernia does not come down, even when the truss is removed. Injections are also given at several points along the inguinal canal, just beneath the fascia. Injections are also given just inside the external ring, and also in Hesselbach's triangle. For the injection of Hesselbach's triangle, the needle is introduced inside of the cord and posterior to it, depositing the solution upon the conjoined tendon or the transversalis fascia. The number of injections



Various points of injection along the inguinal canal. The solution should always be deposited below the fascia and not superficial to the fascia. Several points should be injected at the external ring. The needle point should be within the external ring so that none of the solution filtrates into the subcutaneous fat. When this happens, a hard nodule will form. The needle should not go so deep as to injure the cord.

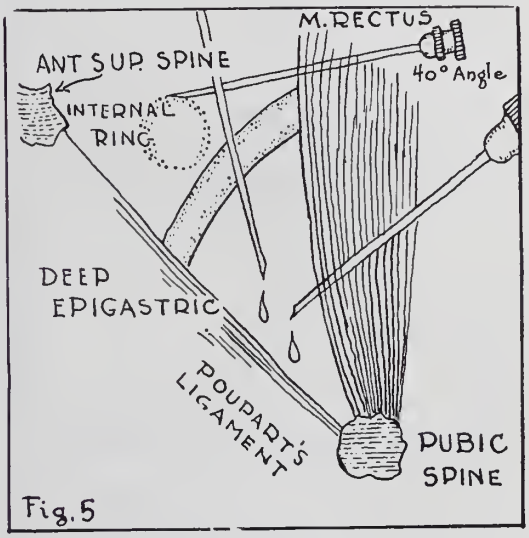
required to close the hernia varies. A few cases have received only four treatments, and had a good result. As many as twenty injections have been given to cases with large scrotal herniae. It is much better to give more treatments and be sure of a good closure. There is more reaction or soreness with the Phenol-Thuja solution or Mayer's solution than with the Proliferol solution. However, the Phenol-Thuja solution produces more proliferation than the other solutions. With Proliferol, the treatment is started at the internal ring. No more than two or three cc. of the solution should be given at the first treatment, and where the stronger solutions of Proliferol are used, not over three to five cc. should be used at any time. Injections should also be made at the external ring and along the canal below the fascia so as to completely close the canal. Also, Hesselbach's triangle should be treated in all indirect inguinal herniae, so as to protect against a direct hernia. It is preferable to treat these cases twice weekly, although they can be treated daily with good results. There is much less after-pain or soreness with this solution than with the other solutions. The



The internal ring can also be injected by introducing a three-inch needle through the external ring, and passing it forward along the inguinal canal to the region of the internal inguinal ring. After passing the external ring it is carried forward to about one and a half to one and seven eighths inches. There is, however, more danger of injuring the cord with this technique.

Femoral herniae can be injected very easily by placing the tip of the finger in the femoral canal, and then injecting the solution immediately below the tip of the finger. Not over two or three drops of the Phenol-Thuja solution or two cc. of other solutions should be injected at one time in femoral herniae. As a rule, not over three or four injections are necessary to obliterate a femoral hernia.

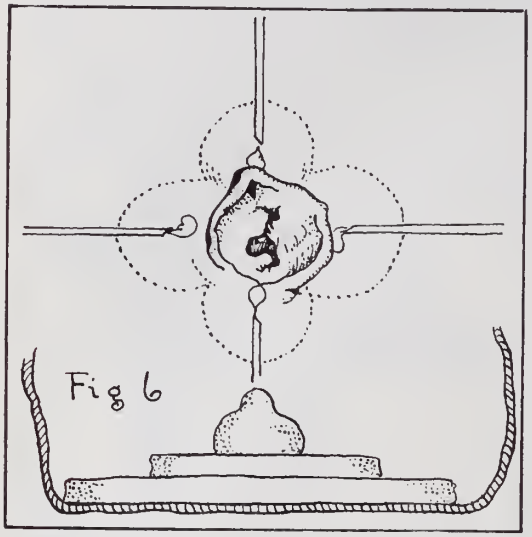
treatment should be continued until the entire inguinal canal is filled with a plastic exudate which becomes indurated and hard, and until no impulse is present. It is not advisable to have the patient strain and cough until it is fairly certain that the hernia is obliterated. Occasionally there will be swelling of the cord, but this does not contraindicate treatment at that time. The swelling always subsides in a few weeks. In direct herniae the region of the internal inguinal ring should be injected to guard against development of an indirect hernia. Where there is a very large external ring, Thuja solution is often used in combination with the distillate mixture. Here the region of the internal ring is injected with the distillate mixture and the Thuja solution is injected at the external ring below the fascia. At the next treatment, the Thuja solution is used at the internal ring, and the distillate mixture at the external ring. Only half the usual amount should be used when treating in this manner. About one treatment with the Thuja mixture to three or four of the Proliferol seem to give better results than either one alone. At the present time it appears as though our best results follow the use of a combination of the Phenol-Thuja mixture



The technique for the injection of Hesselbach's triangle. In the case of direct herniae the needle can be slid along the outer edge of the rectus abdominis muscle or can be inserted into the triangle lateral to the rectus abdominis from above. In this manner the triangle can be injected without injury to the cord. Also showing needle directed at an angle of forty degrees to the skin down to the region of the internal inguinal ring.

with Proliferol. For this two drops of the Phenol-Thuja mixture are added to one cc. of Proliferol. Recinoleate preparations very often cause severe after-pain or cramps and occasionally result in shock. An ordinary five cc. Luer syringe, with a two inch 22 gauge needle, is very satisfactory for the injection. An alcohol sponge for preparing the skin is sufficient as demonstrated by the few abscesses that have developed. Before injection of the proliferating solution, two cc. of two per cent novocain solution without adrenalin is injected at the site to be treated. The needle is left in place and in a minute the solution is injected into the anesthetized area. Aspiration should always be attempted before injecting any solution so as to avoid danger of injecting into the circulation. Where the recinoleate preparations or Phenol-Thuja mixture is used, it is not neces-

sary to use any anesthetic. Up to five cc. of Proliferol can be used at a treatment. Up to three cc. of the recinoleate solution can be given at one treatment.



Method of injection of unbilical herniae. Novocain should first be used as injected in inguinal herniae, only in a small quantity. Not over 1 to 1.5 cc. of Proliferol should be injected at a time at various sides of the hernia. The needle should reach down to the edge of the fascia. Also cross-section of an umbilical pad, showing cone-shaped truss pad which fits into the hernia opening, and then two pads which support this. After this pad is put in place, it is held by an elastic bandage wrapped around the abdomen several times.

Complications

A number of complications have been mentioned: swelling of the cord, hydrocele, epididymitis, sepsis, strangulation, sterility, abscess, and peritonitis. Occasionally there will be a systemic reaction following the use of tannic acid preparations. This has not resulted since the use of synthetic tannic acid in alcohol was discontinued. With the recinoleate preparations there is very often marked pain which may become general over the entire abdomen. This may be so severe so as to simulate shock. Swelling of the cord has been noted in a few cases and this has usually appeared toward the end of the treatments, but has caused no epididymitis or serious disability. Only rarely can fluid be aspirated from a hydrocele of the cord. Where a hydrocele of the cord has resulted it will be absorbed and cause no serious trouble. Occasionally a case will show an anesthesia or hyperesthesia after treatment. This will usually be confined to an area in the lower inguinal region, or the anterior surface of the thigh. One case had a partial paralysis of the femoral nerve, which was very temporary. He complained about weakness of the leg on standing, and the tendency of the leg to draw backward and upward. When seen one hour later this had completely disappeared, and he was working at his usual occupation in about three or four hours. Thuja solution was used in this case. There was, however, in this case, no permanent anesthesia, epicritic or protopathic. From correspondence with other physicians I have learned of three cases with similar reaction. In one of these there occurred a slight atrophy of the quadriceps femoris group of muscles. One case had a hyperesthesia of the thigh which lasted four weeks before clearing up completely. There have been two cases that developed abscesses and a slough, neither of which proved serious as the slough was entirely in the subcutaneous tissues. Two additional cases were seen in consultation that had been injected with Phenol-Thuja solution. Immediately after injection there was severe pain near the parumbilical point on the injected side. Discoloration of the skin and a slough resulted in these cases. I believe this resulted from the injection of the mixture into the deep epigastric artery, causing complete obliteration of the terminal distribution of the epigastric artery so completely that collateral anastomoses could not be re-established before necrosis began. If the precaution had been observed in aspiration before injection, I feel that this complication could have been obviated. There have been no cases of peritonitis in our own series of cases. One of our cases which was injected with Proliferol had very severe abdominal pain after treatment. Operative findings showed no evidence of peritonitis or infection of any kind. The hernia was repaired and postoperative course was uneventful. Occasionally a case will have pain as soon as the injection is commenced, regardless of whether it is below the fascia or in the deep structures. If this happens the injection is to be stopped. Such pain has proved temporary and has never continued

for any great length of time. A few cases have had general abdominal pain, but without untoward effect. In the main such pain has lasted but a few minutes. In one instance, however, it continued for a day and it is my impression that the injection fluid entered the peritoneal cavity in this case. One case treated elsewhere, died at the University Hospital. Sixteen minims of Phenol-Thuja mixture had been injected into the peritoneal cavity with perforation of the ilium, resultant peritonitis and death. There has not been a single case of strangulation during treatment. Neither have there been any cases of sterility as a result of treatment.

The course in cases treated after injection shows an induration in the region of the injection. This is usually tender to pressure on day following the treatment. Usually after two to four treatments there is sufficient exudate or plastic tissue formation to prevent protrusion of the viscera even without the truss. There have been a few cases where a swelling of the cord resulted, but this usually subsided in a few weeks. Hot packs relieve the pain when present. The external ring shrinks in size and the fascia can be felt to thicken, so that at the end of a few weeks the external ring will not admit the tip of the index finger. This usually begins after two injections at the external ring. Practically all patients mention the great relief obtained as soon as they are fitted with a truss and have had two or three treatments. There is less soreness and pain from Proliferol than from either the Phenol-Thuja or Mayer's solutions, and this, used in conjunction with the Phenol-Thuja solution, seems to give better and quicker results than any of the solutions alone.

Objections

The objections which have been mentioned to this type of treatment should be considered. Paraffin injections can be dismissed without further discussion, for it is a well-established fact that the method resulted in very few permanent cures. It caused irritation from the foreign body present, and required surgical interference for its removal and the closure of the hernia. The fact that it has been only in the hands of quacks is not a good argument, for it is not so many years ago that reputable medical men were severely criticized for the injection of hemorrhoids or varicose veins, and today they are both accepted and recognized. The so-called Timmerman treatment by alcohol should be discarded on account of the large number of injections required, and the fact that numerous complications have resulted. The fact that irritating solutions cause discomfort and pain, sufficient to cause patients to be incapacitated, has not been substantiated. It is true that some cases will have a greater reaction than others, but very few cases suffer sufficiently to incapacitate them from heavy work. Another objection is the fact that a truss must be worn for a long period of time. A properly fitting truss is of no more inconvenience than a good fitting glove, after the first few days. I think it can be safely stated that 80% of all hernia cases are wearing trusses at the present time, and that only one out of ten trusses holds the hernia properly reduced. It has been stated that this is a blind and not a rational procedure. To that I may reply that there is a definite technique, and, unless this is learned, great harm may result. This cannot be too strongly emphasized.

Advantages

There are several advantages to this form of treatment, the principal one being that it is ambulatory; the patient continues working; is not confined to the hospital for a period of two weeks, and is not incapacitated for another period of four to eight weeks. There is no question but that the economical issue is of greatest importance at the present time. To illustrate this, I am going to cite one case. It was that of a man 67 years of age, suffering from a bronchial asthma and hypertension. He had two recurrences following surgery, and was wearing the fourth unsuccessfully fitting truss. There was a large ulcer in the groin. This was a case of complete total permanent disability. He was put to bed with the foot of the bed elevated, and was given daily injections for five days. He returned to duty on the seventh day, and has continued at his employment without losing

any more time. At the present time he has a very good result, but he has been advised to always wear his truss when he has a bronchial cough.

There is no question but that recurrences of hernia following surgery are much greater than statistics show, for herniae will recur, or a new hernia develop, as late as 15 to 18 years after the operation. It is most difficult to obtain a satisfactory percentage of recurrences. The incidence of recurrence following the injection treatment is really higher than stated by most men. A number of surgical cases that began to show weakening and beginning recurrence, were fitted with a truss and treated by injection. In this manner, recurrence of the hernia may be prevented. I believe that the recurrence of hernia following operation can be largely done away with, provided that patients are fitted with a truss and compelled to wear it for a period of time after operation. The case should be supplemented by injection treatment if there is any suggestion of recurrence. Recurrence amongst the herniae treated at the University runs 17%. A large percentage of these have been given more injections and have very good results. Recurrence from private cases runs about 12%. The instance of recurrence was highest in the cases who had had but four or five injections. This percentage of recurrence is the average for the various types of herniae, —umbilical, femoral, indirect and direct inguinal. This work comprised the treatment of over one thousand one hundred (1,100) cases (up to Jan. 1, 1936).

Disadvantages

Among the disadvantages to this form of treatment should be mentioned the prolonged period of treatment, wearing of a truss, inability to cure a small percentage of herniae, and the reaction which is manifested by pain and swelling which a few cases develop. However, where a truss fits properly it is not a discomfort. Very rarely does a case have so severe reaction as to incapacitate him. There will be an occasional case which cannot be successfully treated, but this does not form any contraindication as far as later surgery is concerned.

These cases are not discharged as cured until they have been observed for at least a year to two years. They are kept under treatment until a good firm induration is established throughout the inguinal canal, and there is no impulse on coughing or straining. Patients should not be made to cough or strain before at least six injections have been given, or before it is felt that the hernia is closed. A good method of determining whether or not the hernia is completely closed is to have the patient stand, and after straining massage the inguinal region to determine whether any feeling of weakness or "give" can be felt.

Instructions to Patients

The following instructions are given to every case in regard to essentials in treatment:

1. The truss should be worn next to the body, removed in bed and put on in bed; the truss is to be worn night and day for a month after treatment is finished.

2. If the truss does not stay in position, a strap fastened in front and back will hold it in place.

3. The pressure of the pad should produce a depression in the skin.

4. If the hernia becomes painful, or if the truss causes distress, report to the clinic for examination.

5. The hernia must be held back at all times by the truss. You will be able to continue your regular occupation, but, if you do any heavy lifting, be certain that the truss is in proper position.

6. The usual number of injections varies between eight and sixteen.

7. The truss should be worn six months after the last injection. At the end of this period return for check-up.

8. It is also well that you report for examination every two months for about two years after the final check-up.

9. If at any time a recurrence develops, we would appreciate it if you would return for examination or notify us to that effect.

Conclusions

In conclusion, regarding the ambulant treatment of hernia:

1. It is a safe and effective method in eradicating certain types of hernia, if proper technique is used, but there is danger of complications if details are not adhered to.

2. It demands the cooperation of the patient in the proper wearing of the truss.

3. Knowledge of the fitting of trusses and the technique of the injection is absolutely essential.

4. Recurrence of hernia can be very nearly done away with by the combined surgical and injection treatment.

5. Patients who are incapacitated and have definite surgical contraindications, can be so much relieved as to pursue a gainful occupation, and in many cases a cure can be effected. Complications as mentioned have not been substantiated to date by clinical cases.

6. It brings the mechanical treatment of herniae, where necessary, from the hands of those who know little or nothing of diagnosis, pathology and anatomy, into the hands of physicians who should know this form of treatment.

Postgraduate Courses on "Prevention of Disabilities in Children" Held Throughout State Councilor Districts

WITH afternoon and evening programs devoted to the field of "Prevention of Disabilities in Children," thirteen councilor district meetings were held in late November and early December under the joint auspices of the State Medical Society and the Crippled Children's Division of the Department of Public Instruction. Through the cooperation of Mrs. Marguerite Lison Ingram, director of the division in Wisconsin, federal funds available to Wisconsin in the field of caring for crippled children, under the approval of Washington, were used to cover the expenses involved in presenting these courses. Members in each district were notified by special letter of their district meeting and in addition to the regular program, discussion of legislative problems was presented at each meeting by either the President, Secretary, or Assistant Secretary of the Society.

Upwards of 500 members of the Society were able to attend the meetings throughout the State which were held in:

Superior, Menomonie, Marinette, Appleton, Antigo, Wausau, La Crosse, Platteville, Plymouth, Racine, Watertown, Madison and Milwaukee.

Four physicians made up the team for each center and the following physicians participated in this postgraduate teaching effort:

Orthopedics:

D. J. Ansfield, Milwaukee
W. P. Blount, Milwaukee
R. M. Carter, Green Bay
H. L. Greene, Madison
Irwin Schulz, Milwaukee
L. D. Smith, Milwaukee
H. W. Wirka, Madison

Pediatrics:

J. E. Gonce, Jr., Madison
M. G. Peterman, Milwaukee
H. A. Sincock, Superior
H. K. Tenney, Madison

Cardiology:

J. A. Evans, La Crosse
Chester Kurtz, Madison
Harold Marsh, Madison

The programs for the centers included the presentation of the following subjects:

Introduction and Explanation of Program
Fractures of the Elbow in Children
Prevention Through Periodic Observation
Acute Osteomyelitis in Children
Relationship of Rheumatic Fever and Heart Disease
Legislation in 1937
Early Diagnosis and Medical Treatment of Infantile Paralysis
Prevention of Disabilities in Infantile Paralysis

THE WISCONSIN MEDICAL JOURNAL

The Editorial Board

GEORGE H. EWELL, Madison F. GREGORY CONNELL, Oshkosh S. J. SEEGER, Milwaukee

Editorial Staff

JOHN HUSTON, Milwaukee, Medical Editor MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

A. W. ROGERS_____Oconomowoc
FRANK W. POPE_____Racine
JOSEPH DEAN_____Madison
W. CUNNINGHAM_____Platteville
A. H. HEIDNER_____West Bend
S. E. GAVIN_____Fond du Lac
H. A. JEGI_____Galesville
G. R. DUER_____Marinette
J. W. LAMBERT_____Antigo
JOSEPH F. SMITH_____Wausau
F. E. BUTLER_____Menomonie
F. G. JOHNSON_____Iron River
JOS. LETTENBERGER_Milwaukee

Annual Subscription_____Three Dollars-Fifty Cents Single Copies_____Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI JANUARY, 1937 Number 1

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

Water Balance

WE ARE greatly indebted to Coller and Maddock for their efforts in showing us the necessity of maintaining a water balance in the system. Their studies emphasize this importance in the care of sick people, and especially in surgical cases. The fundamentals apply even to well people, since many cases of heat prostration can be prevented by supplying an adequate intake of water and replacing by mouth the chlorides or salt lost through perspiration.

Even though Coller's and Maddock's articles are quite clear, it seems that many of us are not properly applying their suggestions in our efforts to administer fluids. Water is taken into the body, as in the fluids we drink and in the foods that we eat—both from the fluid content of the food itself and some resulting from oxidation processes; generally speaking, the average general diet in most hospitals will provide around 1200 to 1500 cc. of water and the average soft diet about half as much. These figures are important when considering sick people, especially surgical patients.

Water is normally excreted in three ways, —through the urine, the stool, and through vaporization from the skin and lungs. The amount lost in these ways is variable, depending on certain factors. One of our greatest faults in this problem is our failure to recognize the fact that the loss of fluids through the skin and lungs equals or exceeds that of the urine excreted, and I think we invariably underestimate the amount of this last in surgical cases.

In disease states the amount lost may be excessive through vomiting, sweating, and diarrhea; this latter factor is important in the acute intestinal disturbances of infants.

Coller and Maddock have shown that the average amount of fluid lost during a major surgical operation and four hours postoperative, was approximately one quart or over, roughly four fifths of which was through vaporization. The immediate practical application of their recommendation is that the average postoperative surgical case will require 2500 cc. of fluid in the first 24 hours,—subsequently, less,—should be easy to follow, and proper attention given to any sources of abnormal fluid loss.

They have also given us a very practical rule for urinary output. They feel that the minimum output of urine for all surgical patients should be 1500 cc., and that this amount will insure adequate renal function. If, however, with this urinary output, the

patient shows signs of retention of nitrogenous waste products in the blood confirmed by chemical examination of the blood, then the urinary output must be increased by a more adequate intake of water.

Again we have all erred in not recognizing certain signs and symptoms that they have pointed out as being due to dehydration and not to the disease itself, such as "scanty urine." Too often this finding is attributed to a toxic effect of the disease on the kidneys, or as one physician expressed it when a case was seen recently in consultation, the "kidneys were shutting down." A review of this patient's record showed a water intake by mouth of eighteen ounces, with practically no food during the preceding twenty hours. Needless to say, this patient's urinary output promptly increased when glucose solution was given intravenously in adequate quantities.

Coller and his associates concluded from experiments on normal persons that signs of serious dehydration occurred when they lost body fluids equal to approximately six per cent of their total weight. From these experiments, they suggest for us the simple rule that the dehydrated patient should receive in cubic centimeters of fluid the product of six times the patient's weight in kilograms, in addition to 1500 cc. required for urine and 2000 cc. for vaporization.

Another error commonly made is to administer too much normal saline solution so that edema always follows. If the patient has lost excessive chlorides from vomiting, then these should be replaced and the amount can be definitely determined. Beyond this point of adequate replacement the additional fluids should be administered in the form of five per cent glucose solution in distilled water or ten per cent glucose where needed.

At the present time there is no excuse for any hospital to be without an excellent supply of the various types of solutions mentioned for intravenous administration. Many commercial firms have made the solutions with equipment for giving them easily available. These commercial firms, I think, should be warmly commended for their efforts.

There is one other mistake that may be made; the possibility of administering too much water with the production of water intoxication or the overloading of the heart with embarrassment of the circulation. Coller states that when fluids are "properly administered in the correct amounts," he has not observed such difficulties. Since his experience has been very extensive, his opinion should be sufficient for most of us. G. H. E.

Vitamin D Toxicity

SEVERAL observers during the past few years have suggested the possibility of toxic manifestations from overdosage of vitamin D. It is now pretty conclusively established that both acute and chronic forms of such toxicity do occur following the large dosage of vitamin D, as advised in the treatment of arthritis and where administered over extended periods of time.

C. D. Leake* in two very recent communications has carefully summarized this subject, and points out that since it has been established in recent years that vitamins are chemical agents and not accessory food factors, they must be administered as drugs and not given indiscriminately. He points out that if the irradiation of ergosterol is too prolonged, or otherwise not properly done, definitely toxic products are produced, one of which is "toxisterol," a potent calcifying agent, but possessing little antirachitic value.

It has been shown that toxic manifestations with cardiac changes may follow the excessive or prolonged administration of natural vitamin D products, such as cod liver oil as well as the irradiated ergosterol preparations.

Leake in no wise deprecates the use of vitamin D for the prevention or treatment of rickets, but writes only a plea for the control and proper administration of this form of therapy by the physician. It follows, therefore, that the physician should familiarize himself with the therapeutics of these vitamins.

I am sure that every physician would benefit by and enjoy reading Leake's comments. G.H.E.

* Leake, C. D.: California & West. Med., March & October, 1936.

. . . . THE PRESIDENT'S PAGE . . . .

Our Guide

AT THE beginning of this New Year, as at the beginning of all new years, it is perhaps customary to look back at the year or years that have gone by, and with the light of experience of these years to inspect the present status of medicine, and try to visualize the future.

We believe that the scientific side of medicine is marching progressively forward, and *if permitted,* will continue to advance. From the economic side we are constantly threatened with radical attempts to alter the entire plan of the practice of medicine. Under the circumstances it would seem that it would not be amiss to call attention to a very stabilizing and important document that should be familiar to all physicians, The Principles of Medical Ethics.

It has been quite surprising to find rather a large number of practitioners who are more or less unfamiliar with these principles, and do not know that this document contains proper, well considered, proven guidance that will direct any physician in the performance of his duties, so that he can always be certain he is meeting his problems in a proper manner. His duty to his patients, to the profession, to the public, to his consultants, and to his fellow practitioners are all so splendidly and clearly defined that no physician who desires to maintain a high standard of practice, need fear any deviation from such a standard if he observes its principles.

Unfamiliarity with, or lack of observance of, the Principles of Ethics has been the cause of many of the difficulties in which we now find ourselves. The practice of medicine based on the Principles of Ethics would not permit any serious misunderstanding among physicians themselves, physicians and patients, or physicians and the public. Complete familiarity with, and observance of, the Principles of Ethics will enable any physician to practice medicine in such a way that he will always retain the esteem, confidence and respect of his patients, as well as his fellow practitioners, but, what is of much greater importance, he will always maintain his own self-respect.

It is not my intention at this time to discuss the Principles of Ethics, but to bring to your attention the fact that there does exist at present a rather extensive lack of knowledge of the Principles of Medical Ethics in the medical profession of Wisconsin, and what they mean and imply. It is my conviction that a complete understanding, strict observance and practice of the Principles will do more to enable the profession to present a solid front against any attack, and will enable it to gain prestige and support from the public.

Therefore I believe that it would be highly advisable and profitable if each county medical society would, in the very near future, say within the next thirty to sixty days, devote an entire meeting to the study and discussion of the Principles of Medical Ethics, so that a better understanding will be developed throughout the State. To this end our State Society will mail copies to all members within the week.

S. E. Gavin

Society Proceedings

Calumet

All officers of the Calumet County Medical Society were re-elected at their annual meeting on November 12. Plans for the coming year were discussed.

Dr. A. J. Wagner, Brillion, was re-elected president for the third time; Dr. J. J. Minahan, Chilton, was named vice-president for a second term; and Dr. Raymond J. Winkler, Hilbert, was voted secretary for the third consecutive time. Dr. J. W. Goggins was named delegate to the annual meeting of the State Medical Society of Wisconsin in Milwaukee next year, and Dr. N. J. Knauf was chosen alternate.

Chippewa

The Chippewa County Medical Society met on December 8 at the Hotel Northern, Chippewa Falls. Dr. S. Marx White, of Minneapolis, presented two papers: "Depression and Increased Irritability in Heart Muscle Function," and "Management of Early Hypertension."

The previous officers of the society were re-elected for 1937.

Columbia—Marquette—Adams

The Columbia-Marquette-Adams County Medical Society met at the Columbus Hospital on December 15. It was voted, upon the suggestion of Dr. A. F. Schmeling, to submit the name of Dr. H. E. Gillette for appointment to the County Health Board, with Dr. E. E. Tierney and Dr. J. W. MacGregor to act as subcommittee. The motion was made by Dr. J. A. Mudroch, and carried, that the Society disapprove the action of the Employers Mutuals Liability Insurance Company in regard to the panel which includes non-members of the society. It was also decided that during the winter months the meetings would be held in either Columbus or Portage.

Dr. H. M. Caldwell gave a report of the recent meeting in Madison of the Committee on Collections and Credits, and Dr. Harold E. Marsh, of Madison, spoke on the subject of diseases of the blood.

Dodge

Dr. Max Fox, professor of medicine at Marquette University, Milwaukee, was the guest speaker at the meeting of the Dodge County Medical Society held in the Legion Memorial Building on November 24. Following the address and business meeting, a luncheon was served.

Eau Claire—Dunn—Pepin

At a dinner meeting of the Eau Claire-Dunn-Pepin County Medical Society on November 30, at the Hotel Eau Claire, the following scientific program was presented:

Five Minutes of Medical News, Dr. H. F. Fuson, Eau Claire

Bone Marrow Insufficiency with Especial Reference to Granulocytopenia and Thrombocytopenia, Dr. T. L. Squier, Milwaukee

Indications for Operations on Head Injuries, Dr. F. A. Stratton, Milwaukee

The society also had a Christmas party on December 19. Those on the entertainment committee were Dr. H. M. Stang, Dr. J. Baird, and Dr. J. W. Tanner.

Fond du Lac

The Fond du Lac County Medical Society held its regular monthly meeting at 6:30 p. m. November 19 at the Hotel Retlaw.

Dr. James C. Sargent, and Dr. J. Grill, of Milwaukee, discussed, "Tumors of the Bladder," from the standpoint of the urologist and pathologist respectively. The discussion was illustrated with lantern slides.

The December meeting was held at Sunny View Sanatorium, Winnebago, on December 17, the members being dinner guests of the Sanatorium.

Dr. R. H. Stiehm, Madison, discussed "Early Diagnosis of Pulmonary Tuberculosis," and illustrated his lecture with x-ray films. There was also a demonstration of tuberculin skin testing with interpretation of the results.

Green

Twenty-six physicians attended the meeting of the Green County Medical Society in the Eugene Hotel, Monroe, on November 24. Dr. James C. Sargent, president-elect of the State Medical Society of Wisconsin, and Dr. Francis D. Murphy, professor of medicine at Marquette University, were the principal speakers.

Jefferson

Succeeding Dr. J. F. Dennis, Waterloo, Dr. H. O. Caswell, Fort Atkinson, was recently chosen president of the Jefferson County Medical Society.

Other officers elected were: vice-president, Dr. J. R. Venning, who succeeds Doctor Caswell; secretary-treasurer, Dr. Anthony Hahn, re-elected; censor, Dr. Floyd Wendt; delegate to state convention, Dr. H. P. Bowen; and alternate, Dr. W. S. Waite.

La Crosse

The officers for the La Crosse County Medical Society for 1937 are as follows:

President: Dr. J. E. McLoone, La Crosse
Vice-President: Dr. R. L. Eagan, La Crosse
Secretary and Treasurer: Dr. J. A. Roth, La Crosse.

Langlade

The following members of the Langlade County Medical Society have been elected to office for the year 1937:

President: Dr. Paul Dailey, Elcho
Vice-President: Dr. G. E. Moore, Antigo
Secretary-Treasurer: Dr. William P. Curran, Antigo
Delegate: Dr. G. E. Moore
Alternate: Dr. William P. Curran

Marinette—Florence

At a recent meeting of the Marinette–Florence County Medical Society, the following officers were elected:

President: Dr. J. V. May
Vice-President: Dr. H. W. Haasl
Secretary-Treasurer: Dr. R. W. Shaw
Censors: Dr. A. T. Nadeau, Dr. G. R. Duer, and Dr. M. D. Bird
Delegate: Dr. A. T. Nadeau
Alternate Dr. J. W. Boren

Following the dinner and business meeting, Dr. C. M. Kurtz, of the Wisconsin General Hospital, spoke on "Hypertension and Coronary Thrombosis."

Milwaukee

The officers of the Medical Society of Milwaukee County who were elected for 1937 are:

President: Dr. E. F. Peterson, Wauwatosa
President-Elect: Dr. William V. Nelson
Treasurer: Dr. John McCabe
Board of Directors Dr. Chester M. Echols
Board of Censors (two-year term): Dr. E. O. Gertenbach

Delegates to State Medical Society:

Dr. Francis D. Murphy
Dr. Herbert W. Powers
Dr. Herman C. Schumm
Dr. E. L. Tharinger
Dr. George W. Neilson
Dr. Frank E. Drew

Alternates to State Medical Society:

Dr. Millard Tufts
Dr. T. J. Howard
Dr. Edward Jackson
Dr. Henry J. Olson
Dr. A. R. Langjahr
Dr. A. H. Lahmann

Price—Taylor

At the meeting of the Price–Taylor County Medical Society on December 4 at Medford, Dr. L. E. Nystrum was named president; Dr. G. L. Baker, vice-president; and Dr. E. B. Elvis, secretary-treasurer.

Richland

The annual election of officers for the Richland County Medical Society was held recently with the following officers elected: Dr. Charles Bowen, president; Dr. T. B. McCord, vice-president; Dr. Gideon Benson, secretary and treasurer; Dr. George Parke, delegate to the State convention; Dr. B. I. Pippin, alternate delegate and member of the county health committee.

Sauk

At a recent meeting of the Sauk County Medical Society, held at the Hotel Huntley in Reedsburg, the following officers were elected:

President: Dr. F. R. Winslow, Baraboo
Vice-President: Dr. Robert Hudson, Prairie du Sac
Secretary: Dr. F. A. Fike, Reedsburg
Treasurer: Dr. J. F. Moon, Baraboo

The speaker was Dr. John Wear, of the Department of Urology, University of Wisconsin.

Sheboygan

Dr. A. C. Radloff, of Plymouth, has been elected president of the Sheboygan County Medical Society; Dr. F. A. Nause, Jr., vice-president; Dr. W. Huibregtse, secretary; and Dr. W. Neumann, delegate.

Trempealeau—Buffalo—Jackson

The members of the Trempealeau–Buffalo–Jackson Medical Society met on the tenth of December and the following officers were elected for the year of 1937:

President: Dr. Donald Peterson
President-Elect: Dr. Frederick Skemp
Secretary-Treasurer: Dr. R. R. Richards
Delegate: Dr. J. P. Reinhardt
Alternate: Dr. R. L. MacCornack
Censors: Dr. Harry Mannis, Dr. R. Alvarez, Dr. F. Weber

A tuberculin testing program, sponsored by the society, is going to be conducted in Trempealeau County in the early part of 1937.

Waukesha

The Waukesha County Medical Society was entertained by Dr. Byron Caples of Waukesha at Waukesha Springs Sanitarium on December 2.

The officers elected for the next year are: Dr. R. D. Thompson, Statesan, president; Dr. H. F. Sydow, Waukesha, vice-president; and Dr. J. F. Wilkinson, Oconomowoc, secretary-treasurer. Dr. H. W. Peters, of Oconomowoc, and Dr. Herbert Barnes, of Delafield, were elected delegate and alternate respectively, to the annual meeting of the State Medical Society of Wisconsin.

Appleton Medical Society

Dr. V. F. Marshall was elected president of the Appleton Medical Society at the organization meeting of the new group at St. Elizabeth Hospital on December 12.

The society, formed for the promotion of scientific and social activities among physicians of Appleton, is an independent organization.

Dr. E. F. McGrath was named vice-president; Dr. W. J. Frawley, secretary-treasurer; and Dr. Joseph L. Benton, Dr. E. L. Bolton, and Dr. R. T. McCarty, counselors.

Milwaukee Academy of Medicine

The December 16 meeting of the Milwaukee Academy of Medicine included a business meeting and scientific program as follows:

1. Case Reports.
2. Efficacy and Limitations of Vaccines in the Prevention of Whooping Cough—Dr. R. P. Schowalter, Milwaukee
3. The Place of Specific Therapy in the Treatment of Lobar Pneumonia—Dr. W. D. Sutliff, Chicago

The Woman's Auxiliary

President—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
President Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior
Hygeia Chairman—
Mrs. H. H. Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

A Message from the State President

By MRS. CORNELIUS A. HARPER, PRESIDENT
Madison

GREETINGS to our twenty-one auxiliaries and the thousand members. It is remarkable that each year new auxiliaries are being formed in Wisconsin. Our newest is the auxiliary to the Washington–Ozaukee County Medical Society.

By this time each of the county auxiliaries will have had its annual election or will have it very soon. It is important that a list of the new officers and chairmen be sent at the earliest convenience to your State Secretary, Mrs. Walter E. Sullivan, Shorewood Hills, Madison. The names of officers of all county auxiliaries should be mailed before the first of February. This information is required so that a mimeographed list of newly elected officers may be prepared for the State officers and chairmen.

Sometime late in February a state board meeting will be held in Milwaukee. Each newly elected county president is urged to attend this meeting as guest of the State Auxiliary. All state officers and chairmen will be present. The February issue of the Wisconsin Medical Journal will carry an article advising you about details of this luncheon meeting.

It is my hope that each auxiliary will take vital interest in our state projects:

1. Histories of early pioneer physicians and collection of pioneer medical instruments.
2. Promotion of the A.M.A. publication—Hygeia.
3. Increase in auxiliary membership.

Through the suggestion of the outgoing president, Mrs. F. Gregory Connell, our State Auxiliary has been collecting an historical medical exhibit, and is continuing this inspiring work as one of its projects this year.

At our state meeting in September a fine historical exhibit was on display at the State

Historical Museum at Madison. It represented pioneer medical instruments, including complete surgical kits and saddle bags used during the Civil War; also histories and photographs of about fifty pioneer Wisconsin physicians. This work will continue to go forward. Recently about thirty additional historical sketches of pioneer physicians have been added to this valuable collection.

In obtaining these historical sketches I have found the following questionnaire very helpful:

"Dear _____:

"As president of the Womans Auxiliary to the _____ Medical Society, I am obtaining as much of a history as possible concerning the early physicians of _____(city) and _____ county. The following questions are asked with the hope that you will be able to furnish reasonably accurate answers:

1. When did Dr. _____ begin practice in _____(city) or _____ county? _____
2. Give the cities or villages in which he may have located in the practice of medicine _____
3. From what medical school was he a graduate? _____
4. Date of birth. _____ Date of death. _____
5. Did he practice in a specialty or general medicine or surgery? _____
6. Was he associated with any other doctor in his practice? _____
7. Do you know whether he was a member of a medical society or not? _____
8. Was he a surgeon during the Civil War?_____
9. It is the desire of the Auxiliary to obtain some old records or books of the early practitioners that they might be put in the State Historical Library to preserve. Also any instruments, saddle bags, etc., that could be put in the Historical Library under the name of the owner and user. _____ _____
10. Have you a photograph that can be also used in a similar manner? _____
11. It would be of great value if you could give a condensed sketch of the doctor under consideration. Any information you might have will be a matter of historical record."

May I add that it is also our earnest desire to have *a similar questionnaire filled out by the present-day members of your local county medical societies.*

The work being accomplished by the State Auxiliary is very gratifying. Various written reports show that the officers and chairmen, as well as many members, are doing constructive work and giving generously of their time.

OUR Auxiliary is a lucky one! There are three Wisconsin auxiliary women represented on the National Board. Mrs. Robert E. Fitzgerald, Wauwatosa, President of the Auxiliary to the American Medical Association; Mrs. Eben J. Carey, Wauwatosa, National Treasurer; and Mrs. J. Gurney Taylor, Milwaukee, Corresponding Secretary of the National Auxiliary. *Let us live up to their expectations so that they may be proud of their Auxiliary in Wisconsin.*

COUNTY NEWS ITEMS

Dane

Dr. Annette Washburn was the speaker at a luncheon meeting of the Woman's Auxiliary to the Dane County Medical Society on Wednesday, December 2, at the home of Mrs. Arthur Sullivan, Madison. Her subject was "Some Modern Phases of Psychiatry."

Hostesses assisting Mrs. Sullivan were Mrs. J. A. Hurlbut, Mrs. V. B. Hyslop, Mrs. E. S. Sullivan, and Mrs. H. E. Marsh.

Dodge

The members of the Woman's Auxiliary to the Dodge County Medical Society met on October 29 at the home of Mrs. A. W. Hammond, with Mrs. A. M. Rosenheimer as co-hostess. The following officers were elected:

President: Mrs. Alfred M. Rosenheimer
President-Elect: Mrs. Enoch P. Webb
Secretary and Treasurer: Mrs. A. W. Hammond
Hygeia Chairman: Mrs. Clarence M. O'Hara
Press and Publicity Chairman: Mrs. A. W. Hammond
Archives and Historian: Mrs. R. E. Schoen and Mrs. A. M. Rosenheimer
Program Chairman: Mrs. Enoch P. Webb, Mrs. A. A. Hoyer
Membership: Mrs. R. R. Roberts, Mrs. W. E. Bargholtz

Annual reports and other routine business matters were followed by a social hour. The January meeting will be held at the home of Mrs. A. A. Hoyer, with the new officers presiding.

Douglas

The November meeting of the Woman's Auxiliary to the Douglas County Medical Society was held at the home of Mrs. J. W. McGill, president, who entertained the members at a one o'clock luncheon, after which the business meeting was held.

Ten members of the Auxiliary donated subscriptions for Hygeia, which were turned over to Miss Vera Rhenstrand, Superintendent of Schools of Douglas County. Arrangements have also been made with the local radio station and newspaper to use the new program of the American Medical Association, "Your Health."

At the meeting in January, Mrs. L. W. Beebe will succeed Mrs. J. W. McGill as president.

Fond du Lac

The Woman's Auxiliary to the Fond du Lac County Medical Society held its first meeting of the year on Thursday, November 19, at the home of Mrs. J. P. Connell, president. A buffet dinner was served to about thirty members.

After a brief business session with reports of various committees, cards were played, honors in auction going to Mrs. A. C. Florin and Mrs. H. R. Sharpe, and in contract to Mrs. Ralph G. Mills and Mrs. J. Elmer Twohig.

Kenosha

The Woman's Auxiliary to the Kenosha County Medical Society met in the lounge of the Kenosha Woman's Club on the first Tuesday in December for a Christmas party and installation of officers. The new president of the society is Mrs. O. L. Mayfield. Mrs. A. F. Ruffolo will serve as vice-president, Mrs. P. Good as treasurer, and Mrs. S. W. Murphy as secretary. Reports of the year's work were given by the officers.

Manitowoc

On November 19 the members of the Woman's Auxiliary to the Manitowoc County Medical Society entertained the physicians at a roast duck dinner. Mrs. M. P. Andrews, Mrs. R. W. Hammond, and Mrs. F. E. Turgason were on the invitation committee. The decorations and the dinner were in charge of Mrs. L. W. Gregory and Mrs. R. E. Martin. The Entertainment Committee, consisting of Mrs. T. H. Rees, Mrs. L. J. Moriarity, and Mrs. A. F. Stueck had arranged a program of games.

Sixteen members were present at the luncheon meeting on Wednesday, December 9, at the Catholic Center. Dr. R. E. Martin, of Two Rivers, gave an interesting talk on tuberculosis, and Mrs. F. W. Hammond read an article from Hygeia.

The following officers for 1937 were elected:

President: Mrs. A. F. Stueck
President-Elect: Mrs. F. E. Turgasen
Secretary-Treasurer: Mrs. T. H. Rees

Members of the Sick Committee for the next month are Mrs. G. M. Hoffman, Mrs. R. E. Martin, and Mrs. T. H. Rees.

Milwaukee

The Woman's Auxiliary to The Medical Society of Milwaukee County held its fifth annual luncheon meeting at the Y.W.C.A. on Friday, December 11, 1936. There were 108 members and guests present.

Mrs. Robert E. McDonald had planned the beautiful Christmas decorations and Mrs. Arno H. Fromm played a delightful program of Christmas carols. Her "Ballet Des Ombres Heureuses" was enthusiastically received.

Mrs. Robt. E. Fitzgerald, Mrs. Eben J. Carey, and Mrs. J. Gurney Taylor, national officers of the Woman's Auxiliary, were guests of honor; as were Dr. E. F. Peterson, President of The Medical Society of Milwaukee County, and Dr. Chester M. Echols, Dr. Dexter H. Witte, and Dr. Chas. Fidler, past-presidents of the Medical Society of Milwaukee County.

Mrs. Robert E. Fitzgerald, National President of the Woman's Auxiliary, told the story of the development of the auxiliary to the American Medical Association to its present status of 16,000 members. She reviewed most interestingly the philanthropic projects of many State and County Auxiliaries.

In her president's report, Mrs. W. M. Jermain called special attention to the Loan Chest which the Milwaukee Auxiliary is sponsoring and which will make it possible for patients to rent or borrow sickroom equipment.

The following officers and chairmen of standing committees presented their reports which were accepted and placed on file: Secretary, Mrs. A. R. Langjahr; Corresponding Secretary, Mrs. M. Q. Howard; Treasurer, Mrs. J. J. Adamkiewicz; Auditing Committee, Mrs. F. R. Janney; Hygeia Committee, Mrs. John McCabe; Educational Committee, Mrs. Gerald H. Friedman; Social Committee, Mrs. Robt. E. McDonald; Public Welfare Committee, Mrs. Wm. J. Ryan; Public Relations Committee, Mrs. Eben J. Carey; Archives Committee, Mrs. Edwin P. Bickler; Budget Committee, Mrs. Harry J. Heeb; Historical Exhibits Committee, Mrs. Henry J. Gramling; Music Committee, Mrs. J. W. Truitt; Press and Publicity Committee, Mrs. Wm. J. Liefert; Program Committee, Mrs. James C. Sargent; Lobby Hostess, Mrs. A. R. F. Grob; Telephone Committee, Mrs. Herbert G. Schmidt; Membership Committee, Mrs. J. H. Sure.

The placing of 192 Hygeia subscriptions by the Milwaukee Auxiliary to be given to schools and other places where the public will have access to them, gave second place to Wisconsin in number of Hygeia subscriptions.

The Milwaukee County Auxiliary in the past year has assisted the Medical Society and the Health Department in the Tuberculosis Detection Program in two Milwaukee high schools; and has placed seventy-eight speakers from the Medical Society's Speakers' Bureau.

The Milwaukee Museum has offered to display the historical medical exhibit prepared by the Auxiliary.

The Educational Committee assisted the Medical Society in eliminating fraudulent radio advertising

and advertising of patent medicines and quack cures in the newspapers and in stores; and in the checking of medical news stories for the first five months of 1936 to determine their accuracy.

Eighty new members have been added to the roll this past year, the present membership being 420. The following members were presented at this meeting:

Mrs. John F. Brown (Associate)
Mrs. Walter Brussock
Mrs. George William Fox
Mrs. Emil Franklin
Mrs. P. H. Hannen
Mrs. Walter L. Krygier
Mrs. Valorus F. Lang
Mrs. C. R. Marquardt
Mrs. Norval W. McKittrick
Mrs. Harlow S. Roby
Mrs. Santo S. Torcivia
Mrs. Irwin J. Waldman
Mrs. Stanley Wasielewski
Mrs. George E. Whalen

The report of the Nominating Committee presenting the following slate was accepted by unanimous ballot: President-Elect, Mrs. Robert C. Washburn; Vice-President, Mrs. N. Warren Bourne; Recording Secretary, Mrs. Harry O. Zurheide; Corresponding Secretary, Mrs. Norbert Enzer; Treasurer, Mrs. Edward J. Schelbe; Directors, Mrs. William M. Jermain, Mrs. James C. Sargent; Mrs. J. J. McGovern; and Mrs. Edwin P. Bickler.

Mrs. Wm. H. Washburn presented flowers to Mrs. Jermain as a token of the affection and appreciation of the Auxiliary. Mrs. Eben J. Carey then took office as President for 1937.

Sheboygan

Mrs. F. A. Leighton, of Sheboygan Falls, was elected president of the Woman's Auxiliary to the Sheboygan County Medical Society at a luncheon meeting on Wednesday, December 2, at Pfeiler's Restaurant, Sheboygan. Mrs. Paul Mason will serve as president-elect, and Mrs. Adam Pfeiler as secretary and treasurer.

Washington—Ozaukee

Organized a month ago at the home of Mrs. P. M. Kauth, of West Bend, in a meeting attended by twenty-one women, the Woman's Auxiliary to the Washington-Ozaukee County Medical Society held its first meeting on Thursday, December 3, with a luncheon at the Beacon Restaurant, followed by a business and social meeting at the home of Mrs. K. T. Bauer.

Officers of this group consist of Mrs. H. Meyer Lynch, West Bend, president; Mrs. R. S. Fisher, Allenton, secretary; Mrs. E. P. Huth, Belgium, treasurer; and Mrs. C. C. Stein, Port Washington, president-elect.

Meetings of the Auxiliary will be held monthly in different communities. The next meeting will be held on the second Thursday in January at the home of Mrs. O. J. Hurth, in Cedarburg.

News Items and Personals

Through an error in the December issue of this Journal, Dr. Stephen E. Gavin was listed as chairman of the Committee on Public Policy. Dr. Carl W. Eberbach, of Milwaukee, is chairman of this committee.

—△—

Dr. T. C. Abelmann, of Watertown, has been appointed to serve from the First District on the Committee on Collections and Credits, Dr. G. A. Eck, of Lake Mills, having resigned.

—△—

Dr. Erich Wisiol, of Stevens Point, has left for Vienna, Austria, for some postgraduate work. He will also visit clinics in Budapest, Hungary and Berlin, Germany. During his absence, Dr. W. C. Sheehan, his associate, will take care of his practice.

—△—

Dr. L. G. Weed has opened offices in Woodruff, moving there from Rhinelander where he has practiced for the last four and a half years.

—△—

Dr. William B. Rydell, of Rice Lake, recently sailed on the S. S. Hansa to spend several months taking a postgraduate course in surgery at the University of Vienna.

—△—

Dr. H. J. Belson, formerly located at St. Nazianz, who has recently returned from a year's study in Vienna, Budapest, and Berlin, is now associated with Dr. H. W. Aldridge, of Manitowoc, specialist in diseases of the eye, ear, nose, and throat.

—△—

Dr. E. A. Addington, of Ellsworth, has accepted an appointment to a fellowship in x-ray in the Mayo Foundation, Rochester.

—△—

Dr. E. A. Pohle, of the University of Wisconsin, attended the annual meeting of the Radiological Society of North America in Cincinnati the first part of December, presenting a paper entitled "Our Experience with Chest Roentgen Examination of University Freshmen During a Three-Year Period." He also attended a meeting of the Standardization Committee on X-Ray Measurements, and a meeting of the Examining Board for X-Ray Technicians, of which he is chairman.

MARRIAGES

Dr. Samuel R. Mitchell, Milwaukee, and Miss Hazel McKee, Milwaukee.

DEATHS

Dr. Bruno Von Schallern, for over half a century a practicing physician in Ripon, was born in 1856 in Mansfield, Ohio, and died on December 7. After graduation in 1888 from the University of Illinois College of Medicine, he practiced in Cooperstown, Wisconsin, before opening offices in Ripon. Active in civic affairs, Dr. Von Schallern was mayor of Ripon for one term and alderman for several years. Surviving are his widow and two sons.

Dr. George A. Grinde, founder of the Cumberland Hospital and Clinic, died December 13 following a long illness from heart disease. He was born in Norway Grove, and was graduated from the University of Illinois College of Medicine in 1908. In 1914 he founded the Cumberland Hospital, and later opened the Clinic, being the head of both institutions.

He was a member of the Barron–Washburn–Sawyer–Burnett County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

He is survived by three daughters and one son.

Dr. Fred G. Russell, eye, ear, nose, and throat specialist, died on December 6 following a heart attack. Born in Oakland, California, in 1872, he began the practice of medicine in Milwaukee in 1910 following his graduation from the Milwaukee Medical College and the Northern Illinois College of Ophthalmology and Otology.

He was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association.

He is survived by two sisters.

Dr. P. J. Christofferson, of Waupaca, was born in Lind in 1869 and died on November 27 following a heart attack. Graduated from the Marion–Sims College of Medicine, St. Louis, in 1897, he began the practice of medicine in Waupaca thirty-six years ago. He was the founder of the Waupaca Hospital, formerly known as the Community Hospital and Christofferson Hospital.

He was a member of the Waupaca County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Survivors are his widow and two brothers.

Dr. William F. Wegge, physician and surgeon in Milwaukee since 1898 and clinical professor and director of the Division of Neurology at Marquette University for many years, died on November 20. Born near the village of Waterford in 1863, he studied dentistry at Baltimore University. After practicing that profession for a few years he returned to the University of Maryland School of Medicine, from which he was graduated in 1886. He took several postgraduate courses in Austria and in Germany, specializing in mental disorders. Upon his return from Europe he began to practice in Waterford, and for a number of years held the position of superintendent of the Northern Hospital for the Insane at Winnebago.

Doctor Wegge was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association.

He is survived by his widow and a brother.

DRAMA OF "THE GUARDIANS OF YOUR HEALTH"

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the state-owned radio station WHA, Madison (940). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

Jan. 12—Pneumonia
Jan. 13—Goiter
Jan. 14—Exploiting the Deaf
Jan. 19—Varicose Veins
Jan. 20—St. Vitus Dance
Jan. 21—Some Facts and Fancies About Babies
Jan. 26—The Itch
Jan. 27—Kidney Stones
Jan. 28—It Depends Upon the Weather
Feb. 2—Milk
Feb. 3—Piles
Feb. 4—Rheumatism
Feb. 9—Poliomyelitis
Feb. 10—Stuttering
Feb. 11—Heredity and Disease.

SOCIETY RECORDS

New Members

Roy C. Lowe, Neenah
E. E. Carpenter, 1507 Tower Ave., Superior
E. A. Schoenecker, Lake Mills
V. F. Lang, 208 E. Wis. Ave., Milwaukee
Laura M. Fisher, 4718 W. Lisbon Ave., Milwaukee
M. J. Ansfield, Milwaukee
J. E. Morgan, Milwaukee

Reinstated Members

F. M. Chapman, Milwaukee
R. T. Hansen, Milwaukee
C. H. Nichols, Milwaukee
J. A. Thranow, Milwaukee
I. Z. Davidoff, Milwaukee
S. N. Franklin, Milwaukee
E. A. Brzezinski, Milwaukee
A. G. Jenner, Milwaukee
C. H. Burnett, Milwaukee
Ely Epstein, Milwaukee
E. H. Tashkin, Milwaukee
A. I. Greenberg, Milwaukee

S. E. Coffey, Milwaukee
Victor S. Falk, Milwaukee
Max E. Wiese, Milwaukee
J. P. Lenfestey, De Pere
E. S. Schmidt, Green Bay

Changes in Address

G. M. O'Brien, Franksville, to 414 So. 48th St., Philadelphia, Pa.

CORRESPONDENCE

Hillsboro, Wis.

To the Editor:

No one can prosper without criticism, especially just criticism and I want the readers of this page to be the judges as to whether this is just or unjust criticism.

For many years we have heard nothing but praise for our dear old Medical Society (State); what wonderful folks we are, always so ready and willing to make such daring sacrifices for our dear sweet unappreciative patients. Some call it humane; the State Board of Health calls it a duty; the Welfare Society says it is an urgent obligation to care for all classes of patients without compensation. Well, it is just a fine job and I do not blame any of that bunch for encouraging it. They should be cared for and cared for in every respect but, and I emphasize your BUT, who is going to set a fee to care for those poor little chaps, the county nurses chase here and there over the counties and in the schools and find so many defective children, give the report to the child to hand to their parents and that ends the parade. Why? Just because the State Board of Health, the Department for Dependent Children, the State Board of Control, the Legislature, nor any one else has appropriated one white dime to have those defects corrected. What's more no one is asking for such an appropriation. I do not in any way censor them for not making this demand, because they have a bunch of glossy-seated, ravel-cuffed, worn collared, unshaved, long-haired M. D.'s all over the State, all members of the STATE MEDICAL SOCIETY, who are, and have been, dishing out this service without one dollar to show for their work and are subject to criticism and open for malpractice from this indigent class, for what? GLORY? Where in h--- is the glory?

If you shiny-pants friends will remember there was a big drive this fall as the result of an appeal from the State Board of Health on vaccinations. Oh Boy! T. B. test, smallpox, diphtheria, pin worms and what not, all at one setting. The encouraging part of it was, it was to cost the patient 25¢ and the Darn Doctor got every cent of it. THE GRAFTER took the entire 25¢ and stuck it down in his shiny pants. Such a steal—25¢, just to give the banker's kid, the merchant's kid, the judge's kid, the lawyer's kid, the minister's kid,—three vaccinations at one time and then have the nerve to soak them twenty-five cents. It is no wonder those Darn Doctors have money, of course, the State furnished the material, all except the skill and experience, that was acquired and didn't cost anything, so I guess it's all right.

Crownhart's Lay Committee is now investigating institutions and conversing with the superintendents of those institutions. I have wondered when the State Medical Society started inspections of the Penal Institutions, perhaps it is all right; but, does that in any way help the shiny-seated M. D.'s to earn an honest or decent living? When does he send his Lay Committee to the various county seats and meet the authorities on Outdoor Relief, to try to increase the fees for the medical and surgical treatments for those forgotten people, who in order to keep alive must get ready to die before the White-Collared Boys will give an order to have them treated. Then when your work is done will tell you the expense of the county is terrible and we can only give you one-fourth of your bill, which is $1.98 for $20.00 worth of services, take it or leave it, $10.00 for a confinement case 12 miles in the country, 25¢ a mile one way, they expect you to go out there and stay there. Well, that is just what many of the Drs. in Wisconsin will do if they can't get better organized and get some legislation whereby we can at least get a living fee, you are not getting that to-day; and Geo. Crownhart, Governor La Follette and members of the State Medical Society know that as well as those shiny-pants fellows do.

I wonder what you think of this article? I don't care what you think,—you can't deny it. Of course you stick out your chest and light a cigar, that some W. P. A. worker gave you for a call, and pass as a bond broker; I will bet you a 25¢ vaccination, you haven't a month's rent ahead. Now isn't that right?

Let's get organized; go down to Madison, talk with Geo., whose pants don't shine, and get some real honest to god bills before this legislation and fight like *hell* to put it over. How about blazing the trail for at least fair play? At least a square deal? At least a decent meal now and then? How about discarding the shiny pants.

Now if you want any more articles like this drop me a postal card, 1¢ from your 25¢ vaccinations.

Yours,
Dr. Pat Hansberry,

W.P.A. VOUCHERS

Works Progress Administration
State of Wisconsin

149 E. Wilson Street,
Madison, Wisconsin.
December 16, 1936.

Mr. J. G. Crownhart,
State Medical Society,
Washington Building,
Madison, Wis.

Dear Sir: Attached is copy of letter of John W. Eber, District Compensation Officer of district #4, 52 Veterans Administration, Milwaukee, Wisconsin.

In accordance with your request that all matters concerning difficulties arising in the matter of handling WPA injuries by physicians in the State of Wisconsin this matter is submitted to you for whatever disposition you may wish to make.

Many doctors throughout the State have been submitting vouchers which have various types of alterations thereon. These vouchers, if submitted in that condition, invariably are returned by the U. S. Employees' Compensation Commission as not acceptable and with advices that no vouchers showing any alterations will be passed by the Commission for payment. This office, therefore, has been returning vouchers to the doctors for corrections and reexecution with the idea in mind that if corrections on the vouchers are made locally it will avoid delay in payment of the doctors' vouchers when they are submitted to Washington.

It appears that some of the leading industrial physicians have become somewhat aroused. It is evident that the physicians do not realize that the vouchers must be perfect in all respects inasmuch as they are treated the same as checks by the accounting offices. It may be advisable, therefore, for your society to call this matter to the attention of doctors so they will understand the reason for this procedure and will also realize that prompt payment of their bills for services for treating WPA employees depends upon their submitting vouchers which are correct and do not have any alterations thereon.

Very truly yours,
M. W. Torkelson,
Administrator.
by J. C. Gamroth (Signed)
J. C. Gamroth,
State Compensation Officer.

Federal Social Security Act; Unemployment Compensation and Old Age Retirement Pay Roll Taxes Affecting Physicians as Employers

THE following is a summary of the applicability of Titles VIII and IX of the Federal Social Security Act to the medical profession. For more detailed information you should consult the forms referred to herein, when they become available, or write the office of the Collector of Internal Revenue, Federal Building, Milwaukee, Wisconsin, without delay.

This memorandum is not concerned with hospitals, clinics and dispensaries organized and operated exclusively for charitable, scientific and educational purposes which are exempt under both titles VIII and IX of the Federal Act. It is concerned with individuals and partners actively engaged in the practice of medicine, and in the operation of clinics and dispensaries organized on a profit-making basis. Where so organized, such physicians, partnerships, clinics and dispensaries, are *all* subject to Titles VIII and IX of the Act, whether a profit is actually earned or not, for the period for which the tax is payable. If you have *one* or more employes on January 1, 1937, you and the employe are *both* subject to the provisions of Title VIII of the Act. If you had *eight* or more employes during 1936 for the minimum period later explained herein, you are also subject to the provisions of Title IX of the Act.

A REMINDER

As a service to all members of the State Medical Society of Wisconsin, this Journal published in February, 1936, a complete analysis of the responsibilities of the physician as an employer under all Federal and State Social Security legislation. For fear that some members possibly may have failed to comply with the new Federal legislation, the following shorter summary of Titles VIII and IX is published herewith.

Title VIII—Old Age Retirement Tax

All doctors and clinics employing, in the course of his or its professional activities, *one* or more persons, where such person is under 65 years of age, are subject to this title beginning January 1, 1937.

Form SS-4 which was an application for an employer's identification number should have been filed with your local postmaster by November 21, 1936. If by any chance you have not already taken care of this, you should do so *at once*. Each of your employes

should have filled out and filed with your local postmaster form SS-5, which was an application for an account number. This was due December 5, 1936, and should be taken care of *at once*, if by any chance this has been overlooked. Your mailman will furnish you these forms if he has not already done so.

The taxes imposed under this title may be summarized as follows:

1. 1% on 1937 payroll to be paid by employer to the Collector of Internal Revenue, Milwaukee.
2. 1% on the 1937 payroll to be deducted from the wage of each employe by the employer and paid over by the employer to the Collector of Internal Revenue, Milwaukee.

The method, manner and time of payments of these payroll taxes for 1937 and subsequent years is by means of monthly tax returns which are to be filed monthly beginning February 1, 1937. The Federal form is known as *SS-1*, and should be available to you shortly after the first of January. If you do not receive your form early in January, write in for one to the Collector of Internal Revenue at Milwaukee, Wisconsin. *Both* the form and the tax should be returned to the Collector of Internal Revenue at Milwaukee. We understand that the returns for January, 1937, may be mailed together with the tax at any time before February 28, 1937, and that the return and the accompanying tax may thereafter be mailed at any time within the calendar month following the particular calendar month for which the return is being made, and the tax paid.

You should note in particular that the medium in which wages are payable is immaterial. They may be payable in cash, or in something other than cash, such as goods, lodging, food and clothing. The general exception to this rule is that where facilities or equipment are offered by the employer to his employes merely as a convenience to the employer, or as a means of promoting the health, good will, contentment or efficiency of his employes, such facilities or privileges are not considered a part of the wages for purposes of determining the payroll subject to tax. Wages paid an employe in excess of $3,000.00 are *not* to be included in your total payroll for tax purposes. Only the *first* $3,000.00 earned by an employe is taxable either to the employer or the employe under this title. If one of your employes should receive more than $3,000.00 from you, and $3,000.00 or more from another employer, or from private practice, *each* employer must pay the tax on the first $3,000.00 earned by such employe from *each* employment and deduct a similar amount as the employe's tax. Two rather common employments which are not subject to tax under this title are: (a) domestic employment in a private home, and (b) casual employment not in the ordinary course of your practice. Wages paid for either of these employments are not taxable.

Title IX—Unemployment Compensation Tax

Doctors and clinics employing *eight* or more employes on each of *twenty* or more working days during 1936, *each* day falling within a *different* week, are subject to the provisions of Title IX of the Act for the year 1936. Such employers are required to file a return on *Form 940*, Treasury Department, and to pay a tax, not later than January 31, 1937, unless an extension of time is granted.

The tax is computed at 1% of the 1936 payroll and against it a credit may be taken up to 90% of such tax for the amount paid under the Wisconsin Unemployment Compensation Act for 1936.

Example: (Based on 1936 taxable payroll of $10,000.00)	
Federal tax of 1% for 1936, before credit	$100.00
Credit against federal tax (not to exceed 90% of federal tax) for state tax paid	90.00
Net Federal Tax	$ 10.00

In the above example, the Wisconsin tax paid for 1936, which was 2% of payroll, would have been $200.00. Because of the limitation imposed by the Federal Act that the credit may not exceed 90% of the *federal* tax, only $90.00 of the $200.00 actually paid under the Wisconsin act may be used as a credit against the Federal tax.

The same general observations as to wages made under Title VIII above are equally applicable to Title IX, with these three impor-

tant exceptions: (1) there is no *age* limitation on employes whose wages are to be included in the taxable payroll; (2) there is no limit on the amount of the *wage* or *salary* to be included in the taxable payroll; (3) wages paid for casual labor are to be included in taxable payroll.

Salaries paid to doctors in the office or clinic are properly a part of the payroll subject to tax, but remuneration to the partners of an office or clinic, even though paid in regular monthly amounts, are not a part of the payroll, since partners are employers and not employes.

Bonuses paid to employes in 1936 for work done in 1935 are *not* to be included in the 1936 payroll subject to this tax. The payroll on which the tax is based may either have been paid or payable for services rendered between January 1 and December 31, 1936. It is not necessary that the remuneration actually have been paid by December 31, 1936.

An additional 60 days' extension of time for filing *Form 940*, which is otherwise due by January 31, 1937, may be had by making written application for such extension and obtaining the written permission of the Collector of Internal Revenue, Federal Building, Milwaukee, Wisconsin. The tax may be paid in four equal installments at the election of the taxpayer, in which case the first installment is due on or before January 31, the second on or before April 30, the third on or before July 31, and the fourth on or before October 31. On application of the taxpayer and with the approval of the commissioner of Internal Revenue, the time for payment of the tax imposed by this section, or any part, or installment thereof, may be extended up to six months. Such request must be made and permission granted before the date the tax or installment is due in order to avoid interest.

The Journal Bookshelf

BOOKS RECEIVED FOR REVIEW

Textbook of Medicine. By Charles Phillips Emerson, M.D., research professor of medicine, Indiana University. J. B. Lippincott Company, Philadelphia, 1936. Price $8.00.

The 1936 Year Book of General Surgery. Edited by Evarts A. Graham, M.D., professor of surgery, Washington University School of Medicine, St. Louis. The Year Book Publishers, Chicago. Price $3.00.

Handbook of Health Education. By Ruth E. Grout, director of health education study, Cattaraugus County, New York. Doubleday, Doran and Company, Inc., Garden City, N. Y. Price $1.80.

Skin Diseases in Children. By George M. MacKee, M.D., professor of clinical dermatology and syphilology, New York Post-Graduate Medical School, Columbia University; and Anthony C. Cipollarno, M.D., associate in dermatology and syphilology, New York Post-Graduate Medical School, Columbia University. Paul B. Hoeber, Inc., New York, 1936.

A Health Education Workbook. By Kathleen W. Wootten, Head, department of health and physical education, Georgia State College for Women, Milledgeville, Georgia. A. S. Barnes & Company, 1936. Price $1.50.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Pathology. By Eugene Piette, M. D., pathologist and director of the clinical laboratories of the West Suburban Hospital, Oak Park, Illinois; assistant professor of pathology, College of Medicine, University of Illinois, Chicago. Second edition. F. A. Davis Company, Philadelphia, 1936. Price $1.75.

This book of 263 pages is designated as a textbook of pathology and a manual of care of laboratory specimens for nurses. The attempt to produce a systematic pathology text in 196 pages results in ambiguity, inadequate explanation, and direct misinformation. That little time is devoted to instruction in pathology for nurses should not condone either instructor or textbook author in presentation of information that is anything but scientifically sound. J. C. McC.

Healthy Growing. The Healthy Life Series. Grade 4. By John Guy Fowlkes, professor of education, University of Wisconsin, Lora Z. Jackson,

associate librarian, Jackson Clinic, Madison, Wisconsin, and Arnold S. Jackson, M. D., Jackson Clinic, Madison, Wisconsin. John C. Winston Company, 1936. Price 64 cents.

This is the second volume of a series of health education books. It is obviously for older children than the first although still keeping the narrative, conversational form. It goes more fully into diet and the value of "keeping fit." There is also some emphasis placed on "safety first" and other scout activities. As in the first volume the information is accurate and, equally important, it is presented in a rational manner. H. K. T.

Healthy Bodies. The Healthy Life Series. Grade 3. By John Guy Fowlkes, professor of education, University of Wisconsin, Lora Z. Jackson, associate librarian, Jackson Clinic, Madison, Wisconsin, and Arnold S. Jackson, M. D., Jackson Clinic, Madison, Wisconsin. John C. Winston Company, 1936. Price 64 cents.

The experience of seeing a few children develop what might be called bacteriaphobia from their so-called health lessons in school naturally makes one just a trace skeptical as to the unqualified value of this type of education. However, there is nothing in this book that should produce any such result. It is really surprising how much accurate physiology has been crowded into these little narratives and conversations. The simple facts of circulation, respiration, digestion, general hygiene, dental hygiene, diet, etc., are told in a way that should be interesting to any child and make the more complete teaching of the subjects easier. H. K. T.

Nutritive and Therapeutic Values of the Banana. By Research Department, United Fruit Company, Boston, Massachusetts, 1936.

Information of all sorts concerning bananas has been collected in the form of a book of abstracts by the research department of the United Fruit Company. Their purpose, without claim of complete coverage of the literature, is stated as the conscientious presentation of authoritative data at present available for the ready reference of physicians, nutritionists and dietitians. Two hundred and ninety-two papers from the scientific literature are listed alphabetically, by authors, with a subject index in the back. Subject matter dealt with includes data on composition at different stages of ripeness, banana flour, banana powder, various ways of handling and serving bananas, but predominantly, reports and discusses the usefulness of bananas in a variety of disorders, among which figure most prominently coeliac disease, sprue, diarrhea and chronic colitis. M. E. S.

Principles of Chemistry. By Joseph H. Roe, Ph.D., professor of biochemistry, School of Medicine, George Washington University. Fourth edition. C. V. Mosby Company, 1936. Price $2.75.

The subtitle, *An Introductory Textbook of Inorganic and Physiological Chemistry for Nurses and Students of Home Economics and Applied Chemistry*, expresses the scope and purpose of this text. Examination of the book indicates that it is primarily designed for nurses, and is intended to serve to familiarize them with the chemical concepts and procedures most frequently used in medicine and with which they come in continual contact either by word or deed in the course of their duties. This purpose has been well achieved within the space limitations of 330 pages of text. A short laboratory manual, with a brief table giving the composition of foods, and a glossary of over 100 technical terms, most of which involve physiological chemical conceptions, completes the book. Each of the 32 chapters is supplied with a list of questions by which the essence of the subject matter of the chapter is further clarified and emphasized.

It would be difficult to plan and write a better book than this for the primary purpose specified. E. J. W.

Chemical Procedures for Clinical Laboratories. By Marjorie R. Mattice, assistant professor of clinical pathology, New York Post Graduate School of Columbia University, New York. Lea and Febiger, Philadelphia, 1936.

"This book presents the organization of biochemical instruction at the New York Post Graduate Medical School of Columbia University. The form and subject matter are an outgrowth of more than a decade of personal teaching . . . The book is intended as a laboratory guide and not a reference volume."—(preface) There are five main divisions: blood, urine, gastro-intestinal secretions, miscellaneous biological fluids, and reagents. The author has selected the tests with discrimination and has presented them lucidly. The discussion of the clinical significance of the findings is excellent. There are numerous tables which provide concentrated information. The illustrations are scanty and are below the otherwise high standard.

On the whole this book may be highly recommended. It deserves a place in all clinical laboratories and with the increasing use of laboratory services can be profitably studied by physicians generally. W. E. B.

A Textbook of Obstetrics. By Edward A. Schumann, M. D., professor of obstetrics, school of medicine, University of Pennsylvania, surgeon in chief, Kensington Hospital for Women. W. B. Saunders Company, 1936. Cloth $6.50.

Schumann's "Textbook of Obstetrics" can be recommended without any hesitation as a book both for the student and the practitioner. It merits its addition to every library. R. E. C.

Ephedrine Inhalants, Lilly

● Bland, yet markedly decongestive, Lilly Ephedrine Inhalants give immediate relief in head colds and many other nasal conditions accompanied by swelling of the mucous membranes, closure of sinus openings, and excessive secretion.

An inhalant is available with camphor, menthol, and oil of thyme, *Inhalant Ephedrine Compound, Lilly;* and without the aromatics, *Inhalant Ephedrine (Plain), Lilly.*

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Microbiology and Pathology for Nurses. By Charles F. Carter, M.D., director of Carter's Clinical Laboratory, Dallas, Texas. C. V. Mosby Company, St. Louis, 1936. Price $3.00.

A textbook of microbiology for nurses should not be used to make bacteriologists of the nurses, but rather to give the nurse a more intelligent background to be used in caring for patients and preventing the spread of disease. This book is divided into two parts, the first deals with microbiology and the second with pathology. In those schools where a special course in pathology is not given this part of the book (almost half) is unnecessary.

The first 379 pages are devoted to microbiology and as a whole is well done. A very desirable feature is the "questions for review" placed at the end of each chapter. It is only fairly well illustrated. They are not numerous and could be improved upon except for a few colored plates which are good. The weakest part of the book is the chapter which deals with useful bacteria which is only three pages long. This should be much larger as nurses are very apt to get the wrong impression and need a better knowledge in general bacteriology. The chapters on disinfection are only fair. This part of the work is of the most practical value to the nurse and should take up a relatively large portion of the book.

The pathology part of the book is very good for teaching nurses a special course in pathology. It is well illustrated, nearly twice as many colored plates as in the first half, and very complete. The desirability of a special course in pathology for nurses is a debatable point. H.R.G.

Annual Report of Rockefeller Foundation, 1935. 49 West 49th Street, New York.

During 1935, the Rockefeller Foundation expended $12,725,439 of which $2,443,179 was for public health work and $2,773,050 for medical sciences, the major portion of the latter being spent for projects for the advancement of psychiatry in more than a dozen institutions.

In the field of public health, cooperation with various governmental agencies in the training of public health personnel and in the control of disease has been continued with emphasis also on the study of yellow fever, malaria, tuberculosis, hookworm disease and schistosomiasis in their special environments. The work of the Foundation is organized under six divisions: the International Health Division, Medical Sciences, Natural Sciences, Social Sciences, the Humanities, and the program in China.

The problems which are supported under these various divisions present a bewildering array ranging from the fine arts to international relations, from filtrable viruses to the study of African languages, from heavy hydrogen to properties of minerals under extreme pressures and temperatures such as exist deep in the earth. One is impressed also with the broad distribution of the funds geographically; most of the major institutions of learning in this and other countries have been aided in their researches and for the public weal. P.F.C.

Applied Dietetics. By Sanford Blum, M. D., head of department of pediatrics, and director of research laboratory, San Francisco Polyclinic and Post Graduate School. F. A. Davis Company, Philadelphia, 1936.

The author has compiled a list of diets for use in health and disease. The diets suggested for adults are for the most part satisfactory but considerable space is devoted to the starvation treatment of diabetes, a procedure no longer recommended by authorities on diabetes.

The reviewer feels that the second part of the book, which is devoted to the diets of infants and children in health and disease, does not merit favorable comment. The cow's milk formulae recommended for young infants are entirely inadequate to supply the basic requirements. The author suggests mixtures offering only one ounce of milk per pound of body weight. The mixtures are too dilute and are fed at too frequent intervals. At one and two months of age the normal infant, weighing 8 pounds, is fed a mixture containing 8 ounces of milk to 24 ounces of water every two and one half hours for eight feedings. He does not approve of the addition of carbohydrate to cow's milk mixtures and disregards entirely cow's milk modifications of proven worth such as lactic acid and orange juice milk. Orange juice is not added to the diet of artificially fed infants until the age of six months and cereals are not added until the age of eight months. The author makes a sudden change from the limited diet of milk, fruit juice and cereal to a fairly complete diet at one year.

In addition to these suggestions, which are contrary to accepted principles of infant feeding, he makes the dangerous statement that "liver serves the same purposes as cod liver oil and possesses the advantage of being palatable." In consideration of the diets in diseases of infants and children cod liver oil or cod liver oil concentrate and viosterol are not stressed in the treatment of rickets. No suggestions for the treatment of such important dietary problems as pylorospasm or pyloric stenosis and celiac disease are made.

Practice of Medicine. By Johathan Campbell Meakins, M. D., professor of medicine and director of the department of medicine, McGill University; physician-in-chief, Royal Victoria Hospital, Montreal. By C. V. Mosby Company, 1936. Price $10.

This book of 1,310 pages contains many interesting photographs (505) including photomicrographs of tissue sections, and splendid colored plates (36) including illustrations of the blood and bone marrow.

The author emphasizes the pathology and the pathological physiology as they are related to specific conditions. Each disease is logically presented, and the therapy advised is rational. These factors combine to make this an exceptionally good textbook for both the student and practicing physician. R. H. S.

Diabetics

live longer today

THE LIFE SPAN of the diabetic has been lengthened considerably following the discovery of Insulin and the growing knowledge of its use. There is, however, a definite responsibility on the part of the physician to educate the many new diabetics in the importance of proper diet and proper use of Insulin.

The apparent increase in diabetes in recent years has been attributed to the modern manner of living, increased sugar consumption, overeating and lack of muscular exercise. With proper management the great majority of these patients can be kept well-nourished, sugar-free and at work.

When Insulin therapy becomes necessary, Insulin Squibb may well be a product of choice. Insulin Squibb is highly purified, highly stable and remarkably free from proteinous, reaction - producing substances. Great care is taken in its assay to make it uniformly potent. More physicians and more patients are using Insulin Squibb than ever before. They rely upon the quality and dependability of this Squibb Product.

Insulin Squibb of the usual strengths is supplied in 5-cc. and 10-cc. vials.

INSULIN SQUIBB

A SQUIBB GLANDULAR PRODUCT

Modern Treatment and Formulary. By Edward A. Mullen, M. D., assistant professor pharmacology and physiology, Philadelphia College of Pharmacy and Science. F. A. Davis Company, Philadelphia, 1936.

The present volume is an attempt to present in seven hundred pages a compendium of differential diagnosis, medical and surgical therapy, materia medica, posology, first aid and toxicology, as well as the elements of linguistics for the busy practitioner.

To aid the physician in his therapeutic efforts, over two thousand prescriptions are presented, a large percentage of which are of the "shotgun" variety. In spite of a word of advice by the author of the foreword to the user of the book to consider the prescriptions as suggestive rather than mandatory and to modify the proportions of one or the other ingredients to meet the special case, it is felt by the reviewer that if the physician is so busy that he must practice in "cook book" style, he will also lack the time and ingenuity to adapt his therapy to the individual case. A statement in the foreword, "The practice of therapeutics is an art. No amount of scientific logic can take the place of practical bedside experience in determining peculiarly happy or successful combinations," epitomizes the attitude of the book.

While it must be recognized that much of our present day therapeutics is of an empirical nature, such recognition does not imply that it should be accomplished uncritically. Surely the advancement of a rational therapeutics based upon the use of drugs of proven pharmacologic action under carefully controlled clinical conditions will be retarded, if the physician deludes himself into believing one drug responsible for a cure when the patient has received a dozen other agents during the course of the treatment. M. H. S.

Bailey's Textbook of Histology. By Philip E. Smith, Ph. D., editor, professor of anatomy, and others, of the College of Physicians and Surgeons, Columbia University. Ninth edition. William Wood and Company, 1936. Price $6.00.

Bailey's Textbook of Histology has long been a good book on the subject. The 9th edition is a marked improvement over previous editions in that the subject matter is better balanced and the illustrations clearer. Another feature which adds to the value of the book is a correlation of structure and function. As in most standard textbooks there are some things which are open to criticism. The chapter on the respiratory system is disappointing. The authoritative work of Dr. W. S. Miller on the lung is essentially ignored. While the secondary lobule of the lung is mentioned the analysis of the primary lobule is omitted. Figure 347, which is distinctly a section of a bronchus showing several prominent cartilage masses, he lists as a bronchiole. Fortunately for the book most of the other chapters are quite well done and the book will pass as a standard textbook of histology. T. H. B.

Bright's Disease and Arterial Hypertension. By W. J. Stone, M. D., clinical professor of medicine, School of Medicine, University of Southern California, Los Angeles. W. B. Saunders Company, 1936. Cloth $5.00.

This book is one of several on the subject published within recent years and a very satisfactory and concise addition to the group. The first chapter includes short historical notes about various men whose work in nephritis and hypertension has been outstanding. The second chapter deals with classifications and it is satisfactory though not complete. The author furnishes a new clinical classification of his own which does not appear to have any particular advantage over several others including Christan's. Succeeding chapters in the forepart of the book deal with renal physiology, water balance, edema, tests of kidney function, acidosis and alkalosis, uremia, and discussion of renal insufficiency in conditions other than Bright's disease. These chapters are sketchy but very well done. The remaining half of the book deals with the various types of nephritis and hypertension, with discussion of the chemical and pathological details. Particularly commendable is the manner of presenting treatment in detail with specific recommendations relative to diet and drug therapy. The final chapter includes abstracts of autopsies of cases representing various diseases with which the volume is concerned and these are drawn from the records of the hospital with which the author is associated.

This work is clearly written; the organization, printing, and appearance are good, and there are several microphotographs all of which are excellent. This book has obviously been written for the clinician, and though all of the author's statements cannot be agreed to, certainly the mass of presented material is sound and it can be recommended. O. O. M.

A. M. A. Council on Pharmacy and Chemistry Reports, 1935. American Medical Association, Chicago, 1935.

The Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1935 contains in addition to the reports previously published in the Journal concerning the reasons for acceptance or rejection of new drugs for the N. N. R., editorial comments which have accompanied such reports and reports of lesser significance which have not been previously published.

An example of the difficulties encountered by the Council and its sincerity in its program designed for the protection of the lay public against unethical advertising is to be found on page 71 of these reports in that the Council found it necessary to reprove the advertising department of the American Medical Association for certain features of an advertisement appearing in the Association's own publication, Hygeia. The practitioner of medicine who is interested in rational therapy will find much of value in these reports. M. H. S.

Copyright 1937, Liggett & Myers Tobacco Co.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

BENZEDRINE SOLUTION*

REG. U.S. PAT. OFF.

For Shrinking the Nasal Mucosa in Head Colds, Sinusitis, and Hay Fever

1) EFFECTIVE . . . "Benzedrine and ephedrine both gave maximum shrinkage within five minutes."

Scarano: Med. Record: Dec. 5, 1934

2) PROLONGED ACTION . . . "Benzedrine in a 1 per cent oil solution . . . gave a shrinkage which lasted approximately 18 per cent longer than that following applications of a 1 per cent oil solution of ephedrine."

Giordano: Penna. Med. Jour.: Oct., 1935

3) INEXPENSIVE . . . Benzedrine Solution is one of the least expensive liquid vasoconstrictors available today.

*Benzyl methyl carbinamine 1% in liquid petralatum with ⅓ of 1% oil of lavender.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

EST. SKF 1841

When Dealing With Cancer

consider the utility, accessibility, and

LOW COST OF RADIUM THERAPY

RADIUM THERAPY is of Particular Value in Carcinoma of Cervix Breast Lip Tongue Bladder Rectum Prostate • Epithelioma Uterine Bleeding and Fibroids

Our rental plan gives you an adequate radium supply, quickly available, with every requirement for approved technique—new platinum filters—all dosage range in tubes and needles. All applicators are prepared under competent medical and technical supervision. Special delivery express service.

Typical Rates

Actual time of use	50 milligrams	75 milligrams	100 milligrams
36 hours or less	$10.00	$14.50	$19.00
48 hours	13.00	19.00	25.00
72 hours	19.00	28.00	37.00
96 hours	25.00	37.00	49.00

RADON, in ALL-GOLD implants, $2.50 per millicurie

Telephone Randolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building 25 E. Washington St.

CHICAGO, ILL.

Behind

MERCUROCHROME

(dibrom-oxymercuri-fluorescein-sodium)

HVD *is a background of*

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.

BALTIMORE, MARYLAND

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:—

"I have never been without your protection and naturally after this experience will never be."

THE MEDICAL PROTECTIVE COMPANY

OF FORT WAYNE, INDIANA

WHEATON, ILLINOIS

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE—The best microscope and equipment that $75 can buy—F.O.B. Milwaukee. V. A. Chapman, M. D., 324 East Wisconsin Avenue, Milwaukee. ASO

FOR SALE—Complete equipment of eye, ear, nose, and throat specialist; viz., office furniture, instruments, and books. Address The Milwaukee Medical Times, 753 Bankers' Building, Milwaukee, Wis.

FOR SALE—Two Spencer microscopes in good condition; one, $25; one, $35. Also a set of Tice's "Practice of Medicine," $35. Address: Benjamin Lieberman, M. D., 2250 North Twenty-seventh Street, Milwaukee, Wis.

FOR SALE—Physician's instruments and General Electric high frequency diathermy and surgical diathermy machine; also a Keystone Telebinocular. Address replies to No. 47 in care of the Journal.

FOR SALE OR RENT — Good country general practice with modern home near Madison. Address replies to No. 51 in care of Journal.

COMPLETE DOCTOR'S OFFICE CLINICAL EQUIPMENT—X-ray diathermy, etc., secured in deal. Will sell, trade for property, rent, etc., or will equip clinic in New London on share or rent basis. A. A. Waitkus, 1409 North Twenty-Seventh Street, Milwaukee.

WANTED—Laboratory technician to assist in doctor's office. Write The Milwaukee Medical Times, 753 Bankers' Building, Milwaukee.

WANTED—Either position as assistant to general practitioner or locum tenens for short or long period; experienced. Address replies to No. 53 in care of the Journal.

LOCUM TENENS—Experienced physician would like locum tenens work for a short or long period; licensed in Wisconsin; references furnished; will not compete. Address replies to No. 54 in care of the Journal.

Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

WANTED—Partner by a physician, thirty years established and doing a large surgical and medical practice. Located in south central part of Wisconsin. A beautiful up-to-date city of 25,000. Excellent hospital, schools, and churches of all denominations.

The applicant must be strictly ethical, not afraid to work, and must be able to do general surgery. If not up-to-date in surgery, will allow him to take three to six months' postgraduate work.

One thousand dollars buys half interest in office equipment. Will turn over to partner half of all book accounts at face value. Reason for selling: Work has become too heavy. This is an unusual opportunity. Must have cash and be able to furnish references. Address No. 50 care of the Journal.

LOCATION—Good opening for physician in town of 350 population with surrounding territory of at least 1,500. Hospital facilities within eighteen miles; good high school; fifty miles south of St. Paul on Burlington Railroad. Address replies to Mr. Milton A. Michaels, Maiden Rock, Wisconsin.

LOCATION—Splendid opportunity for Wisconsin registered eye, ear, nose, and throat man. Position open immediately in Milwaukee. Address Dr. V. A. Chapman, El Paseo Building, Palm Springs, California.

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter

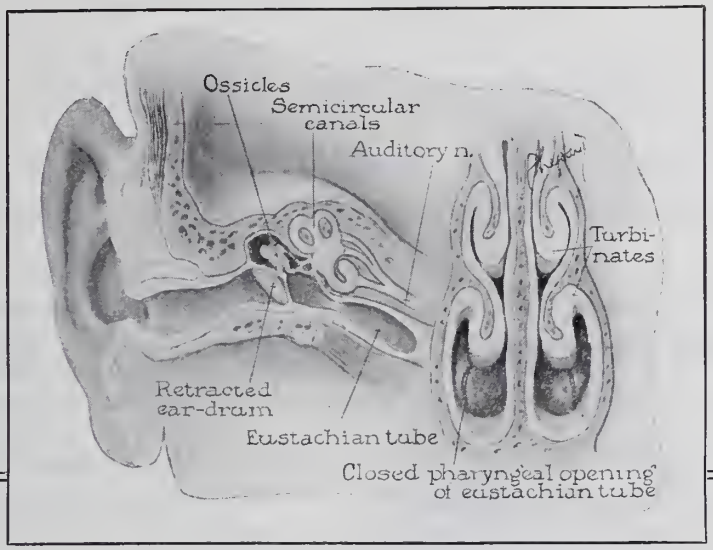
Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen and silk. Washable as underwear. Booklet shows three different "types" and many variations of each.

Picture Shows "Type N"

For Ptosis, Hernia, Pregnancy, Obesity, Relaxed Sacroiliac Articulations, High and Low Operations, etc.

Each Belt Made to Order. *Ask for literature*

Katherine L. Storm, M. D.
Originator, Owner and Maker
1701 Diamond Street — Philadelphia, Pa.



Semischematic drawing showing the relationship of the auditory canal, eustachian tube and nasopharynx.

Why the Dropper Furnishes a Convenient Means of Applying

NEO-SYNEPHRIN HYDROCHLORIDE

(levo-meta-methylaminoethanolphenol hydrochloride)

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

Pharmacological as well as anatomical considerations indicate the advantages of the medicine dropper in applying Neo-Synephrin for the relief of nasal congestion in colds, rhinitis and sinusitis.

Among the advantages of this method are the following:

Accurate. The amount of medicament is accurate within therapeutic limits.

Definite Control of Dosage. A 1-cc dropper is supplied with each bottle of Neo-Synephrin Emulsion so that the dosage can be gauged with accuracy.

Neo-Synephrin Hydrochloride offers the following advantages:

More sustained action than epinephrine.
Less toxic in therapeutic doses than epinephrine or ephedrine.
No sting at point of application.
Active on repeated usage.

No Deterioration. Neo-Synephrin in all dosage forms is relatively stable. It does not lose its effectiveness on repeated usage. No appreciable deterioration occurs when it is kept in the original dark bottle in which it is dispensed.

Three Forms

SOLUTION—¼% and 1% (one-ounce bottles)

EMULSION—¼% (one-ounce bottles)

JELLY—½% (in collapsible tubes with nasal applicator).

FREDERICK STEARNS & COMPANY

DETROIT NEW YORK KANSAS CITY SAN FRANCISCO
WINDSOR, CANADA SYDNEY, AUSTRALIA

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

MADISON HEADQUARTERS

State Medical Society of Wisconsin
Annual Meeting, Sept. 8, 9, 10, 11, 1936.

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

NORMANDALE

for

Neuropsychiatric Cases

An institution for the treatment of functional and organic disturbances of the central nervous system, including psychoses.
For further information address:

Dr. I. B. Shulak, Supt.
NORMANDALE
Madison, Wisconsin

WHEN IN MADISON

Visit Your State Offices

Room 305, Washington Building

one block from the Capitol

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S

770 North Water St. **Phone Daly 1461**
MILWAUKEE, WIS.

Kenilworth Sanitarium

KENILWORTH, ILLINOIS
(Northern Suburb of Chicago)

Founded by Sanger Brown, M. D., 1905

Built and equipped for treatment of mental and nervous diseases. Over ten acres of well parked and landscaped grounds. Supervised occupational and recreational activities.

JAMES M. ROBBINS, M.D., Medical Director
CHRISTY BROWN, Business Manager
PETER BASSOE, M.D., Consulting Physician

All correspondence should be addressed to Kenilworth Sanitarium, Kenilworth, Ill.

HEALTH AND ACCIDENT INSURANCE

For Ethical Practitioners Exclusively

$5,000.00 accidental death $25.00 weekly indemnity, health and accident	For $33.00 per year
$10,000.00 accidental death $50.00 weekly indemnity, health and accident	For $66.00 per year
$15,000.00 accidental death $75.00 weekly indemnity, health and accident	For $99.00 per year

34 years' experience under same management

$1,350,000 INVESTED ASSETS

ASSURE ABILITY TO PAY
More Than $7,350,000.00 Paid For Claims

Disability need not be incurred in line of duty —benefits from beginning day of disability.

Why don't you become a member of these purely professional Associations?
Send for applications, Doctor, to

E. E. ELLIOTT, Sec'y-Treas.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

400 First National Bank Bldg.
OMAHA, NEBRASKA

$200,000 deposited with State of Nebraska for our members' protection.

DR. LYNCH'S SANATORIUM

..... FOR DIABETES, BRIGHT'S DISEASE, AND HIGH BLOOD PRESSURE ... AND ALL DISEASES of NUTRITION

A cheerful, homelike institution, located in one of Milwaukee's finest residential districts. Fully equipped and staffed for modern treatment of all Nutritional Diseases. More than twenty years of successful experience commend it to physician and patient alike. Write for rates.

PHONE LAKESIDE 0747
2530-32 E. BRADFORD AVE.
MILWAUKEE, WISCONSIN

THOSE WHO SERVE YOU

Join the Editorial Board in Wishing You A Happy New Year

Cigarettes
Chesterfield
Philip Morris & Co.

Cosmetics
Luzier's, Inc., Kansas City, Missouri

Foods
American Can Company, 230 Park Ave., New York City.
Corn Products Refining Co.

Infant Food Manufacturers
Corn Products Refining Co.
R. B. Davis Co., Hoboken, N. J. (Cocomalt)
Mead Johnson & Company, Evansville, Ind.

Instrument Houses
W. A. Baum Co., 460 W. 34th St., New York, N. Y.

Insurance
Employers Mutuals, Wausau, Wisconsin.
Massachusetts Protective Association, Worcester, Mass.
Physicians Casualty Assn., 1st National Bank Bldg., Omaha, Nebr.

Malpractice Insurance
The Medical Protective Co., Wheaton, Ill.

Medical Schools
University of Wisconsin Medical School, Madison, Wis.
Marquette School of Medicine, 561 N. 15th St., Milwaukee, Wis.

Milk Products
R. B. Davis Co., Hoboken, N. J. (Cocomalt)
Mead Johnson Co., Evansville, Ind.

Optical Manufacturer
N. P. Benson Optical Co., Minneapolis, Minn.
The Milwaukee Optical Mfg. Co., Milwaukee, Wis.

Orthopedic Supply Houses
Doerflinger's, 770 N. Water St., Milwaukee, Wis.
Orthopedic Appliance Co., 123 East Wells St., Milwaukee, Wis.

Pharmaceutical Manufacturers
Abbott Laboratories, North Chicago, Ill.
Hynson, Westcott & Dunning, Inc., Baltimore, Md.
Eli Lilly & Co., Indianapolis, Ind.
Merck & Co., Inc., Rahway, N. J.
Parke, Davis & Co., Detroit, Mich.
Petrolagar Laboratories, 8134 McCormick Blvd., Chicago, Ill.
Smith, Kline & French Laboratories, Philadelphia, Pa.
E. R. Squibb & Sons, New York, N. Y.
Frederick Stearns & Co., Detroit, Mich.
U. S. Standard Products Co., Woodworth, Wis.

Pharmaceutical Supply Houses
Kremers–Urban Co., Milwaukee, Wis.
Roemer Drug Co., Milwaukee, Wis.

Postgraduate Courses
Cook County Graduate School of Medicine, 427 South Honore, St., Chicago, Ill.

Radium
Physicians' Radium Assn., 55 E. Wash. St., Chicago.
Radium & Radon Corp., 25 E. Wash. St., Chicago, Ill.

Sanitarium—Diabetes
Dr. Lynch's Sanitarium, Milwaukee, Wis.
The Spa, Waukesha, Wis.

Sanitariums—Nervous and Mental
Kenilworth Sanitarium, Kenilworth, Ill.
Milwaukee Sanitarium, Wauwatosa, Wis.
North Shore Health Resort, Winnetka, Ill.
Rogers Memorial Sanitarium, Oconomowoc, Wis.
Sacred Heart Sanitarium, Milwaukee, Wis.
St. Croixdale, Prescott, Wis.
Shorewood Hospital–Sanitarium, Shorewood, Milwaukee, Wis.
The Summit Hospital, Oconomowoc, Wis.
Waukesha Springs Sanitarium, Waukesha, Wis.

Sanatorium
River Pines Sanatorium, Stevens Point, Wis.

Schools—Subnormal Children
Mary E. Pogue School

Soft Drinks
Coca-Cola Company, Atlanta, Ga.

Support Manufacturers
Katherine L. Storm, M.D., 1701 Diamond St., Philadelphia, Pa.

X-Ray Laboratory
Fortier and Fortier, 709 Majestic Bldg., Milwaukee, Wis.

X-Ray Manufacturers—Distributors
General Electric X-Ray Corp., 2012 Jackson Blvd., Chicago, Ill.
Hurley X-Ray Co., 2511 W. Vliet St., Milwaukee, Wis.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements

The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course

The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission

A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction

The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities

Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

STEPHEN E. GAVIN, Fond du Lac, President
JAMES C. SARGENT, Milwaukee, President-Elect
A. E. RECTOR, Appleton, Speaker
HENRY J. GRAMLING, Milwaukee, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
A. W. Rogers_____Oconomowoc

Second District:
Frank W. Pope_____Racine

TERM EXPIRES 1937

Third District:
Joseph Dean _____Madison

Fourth District:
W. Cunningham ____Platteville

TERM EXPIRES 1937

Fifth District:
A. H. Heidner_____West Bend

Sixth District:
S. E. Gavin_____Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi_____Galesville

Eighth District:
G. R. Duer_____Marinette

Ninth District:
Joseph F. Smith_____Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler_____Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson_____Iron River

Twelfth District:
Joseph Lettenberger_Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert_____Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Killins, Green Bay.
Calumet	A. J. Wagner, Brillion	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purcell, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	F. C. Sarazin, Superior	E. A. Myers, Superior.
Eau Claire-Dunn-Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	C. C. Vogel, Elroy	J. S. Hansberry, Wonewoc.
Kenosha	W. C. Stewart, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, Blanchardville	E. D. McConnell, Darlington.
Langlade	Paul Dailey, Elcho	W. P. Curran, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	H. H. Christensen, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Williams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Oneida-Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Anderson, Plum City	A. E. McMahon, Glenwood City.
Polk	W. C. Andrews, Frederic	Earl C Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	L. M. Lundmark, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempealeau-Jackson-Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	T. L. Jacobson, Delavan	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	O. A. Backus, Nekoosa	W. G. Sexton, Marshfield.

BE PREPARED

THE present crusade to stamp out syphilis will bring to light many patients suffering from syphilitic involvement of the central nervous system.

The usefulness of Tryparsamide Merck in the treatment of Neurosyphilis has been established by many different and critical investigators. Be prepared to give your patients full advantage of this remarkable remedy, the use of which is simple, inexpensive, and accessible to the patient through the service of his personal physician. Return the attached coupon for clinical reports and treatment methods.

MERCK & CO. Inc.

Manufacturing Chemists

RAHWAY, N. J.

★ Please send clinical reports and treatment methods on Tryparsamide Merck.

Name..... .....M.D. City.....

Street..... State.....

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Reeducational Methods Applied.

Building Fireproof
Isolated, Fireproof Psychopathic Department for Acute Mental Cases
Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
JAMES C. HASSALL, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin
PETER BASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office: 1330 Wells Building
Tuesday Mornings by Appointment
Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1-3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
Rock Sleyster, M.D., Medical Director.
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".

DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

The Wisconsin Medical Journal

IN THIS ISSUE

BLEEDING BEFORE MENOPAUSE
By Jacob J. Horwitz, M. D.
BLEEDING IN EARLY PREGNANCY
By John Dale Owen, M. D.
BLEEDING IN LATE PREGNANCY
By John W. Harris, M. D.
AMEBIASIS
By Joseph L. Miller, M. D.
INSULIN IN DEMENTIA PRAECOX
By Hans H. Reese, M. D.

COLLEGE OF PHYSICIANS
LIBRARY
MAR 22 19
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 76

XXXVI Number 2
ashington Avenue

MADISON, WISCONSIN, FEBRUARY, 1937
Copyright, 1937, by The State Medical Society of Wisconsin
Per Year $
Single Copy 50 Ce

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

Medical Directors:
T. H. HAY, M. D. 1906-1916
J. W. COON, M. D. 1916-1934
H. M. COON, M. D. 1934-

- A PRIVATE SANATORIUM
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES.
- CAREFULLY SUPERVISED REST
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Additional Information, Apply To:
Medical Director, Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director.

FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

Partners—

The Medical Profession and EMPLOYERS MUTUALS are partners of long standing, in the cause of reducing human suffering and economic loss resulting from industrial sickness and injury. This partnership is exemplified in many ways — in the reports and symposiums issued by EMPLOYERS MUTUALS, in the cooperation offered by their Physiotherapy division, and in the promptness of payment of medical and compensation expenses, to relieve the workman of financial worries. It is no wonder that our "partners," the Doctors of Wisconsin, turn to EMPLOYERS MUTUALS for various forms of Insurance . . . Automobile, Fire, Public Liability, etc. Here, again, the principle of partnership is exemplified—for these Mutual Companies are operated by policyholders for policyholders, giving rapid efficient service, and paying operating profits in the form of dividends to policyholders. Will you let one of our men tell you of the advantages that EMPLOYERS MUTUALS offer you? Write or telephone any office!

EMPLOYERS MUTUALS

Appleton
Eau Claire
La Crosse

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.
EMPLOYERS MUTUAL INDEMNITY CORPORATION
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY
Home Office: Wausau, Wisconsin

Madison
Milwaukee
Superior

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 2

MADISON, WISCONSIN, FEBRUARY, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

Bleeding Before the Menopause by Jacob J. Horwitz, M.D., Milwaukee ---- 87

Bleeding During Early Pregnancy by John Dale Owen, M.D., Milwaukee ---- 94

Bleeding in Late Pregnancy by John W. Harris, M.D., Madison ---- 101

Amebiasis by Joseph L. Miller, M.D., Chicago ---- 106

Schizophrenia; Insulin Therapy in by Hans H. Reese, M.D., Madison ---- 111

EDITORIALS

"Publicity" ---- 112

An Important Procedure ---- 113

MISCELLANY

Page

The President's Page ---- 114
Society Proceedings ---- 115
Woman's Auxiliary ---- 116
News Items and Personals ---- 118
Marriages ---- 118
Radio Program ---- 118
Deaths ---- 119
Society Records ---- 119
Income Tax Provisions Affecting the Medical Profession
I. Federal ---- 119
II. State ---- 123
Proceedings of January Council Meeting ---- 128
Rosenwald Fund Subsidies ---- 132
Books Received for Review ---- 138
Book Reviews ---- 138
Physicians' Exchange ---- 140

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]

"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physio-mechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M. D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D.
L. Tennyson Peyton, M.D.

When writing advertisers please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **B. P. Grimes, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

Three cardinal points in Benson Prescription Service:

1. Accurate Interpretation
2. Careful Styling
3. Individuality

N. P. BENSON OPTICAL CO., INC.

"Established 1936"

Main Office: MINNEAPOLIS, MINN.

— Branches —

ABERDEEN
BISMARCK
DULUTH
EAU CLAIRE
LA CROSSE
WAUSAU
RAPID CITY
STEVENS POINT
ALBERT LEA

Council ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry *Accepted*

Mildly Antiseptic, Emollient and Astringent

Ichthyol may be used externally in any strength. For various skin affections and on joints, a 5%-50% ointment; for tampons, a 10%-25% solution in glycerin or water; for douching, a 2% solution, are usually recommended. It may be incorporated with cacao butter for rectal or vaginal suppositories. Washing in boiling water readily removes Ichthyol stains from fabrics.

MERCK & CO. Inc. *Manufacturing Chemists* **RAHWAY, N. J.**

The first formula must agree with the baby!

NEWBORNS require breast milk. Deprived of human milk, their nutritional requirements are met by simple mixtures of cow's milk, sugar and water. The milk may be fresh, evaporated, dried, sweet or sour; the sugar simple or mixed.

Whole milk formulas are suitable for most newborns with good digestive capacities. **The amount of whole milk given should approximate ⅔ of the total required calories. And the remainder (⅓) should be in added Karo.** Water is added to the mixture for the fluid intake to be about 2½ ounces per pound of baby weight per day.

Evaporated milk formulas are indicated for newborns with limited digestive capacities. They may be used to advantage in considerably higher concentrations than whole milk for premature, feeble and debilitated infants. ***The added Karo is again one-third of the total required calories.***

Dried milk formulas are suitable for allergic infants who will take only small volumes at a feeding and for babies of allergic parents. Formulas approximately equivalent to whole milk may be made up with water and Karo added in the same ratio as in whole milk mixtures.

Acid milk formulas are of particular value for babies with low digestive capacities requiring large food requirements. Acid milk requires no dilution with water. The amount of Karo required may be added directly to the total volume of acid milk prescribed.

Karo is an excellent milk modifier of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor) for both the baby and the budget.

FORMULAS FOR THE NEWBORN

3 Ounces; 6 Feedings

Whole Milk	10 ounces
Boiled Water	10 ounces
Karo	2 tablespoons
Evaporated Milk	6 ounces
Boiled Water	12 ounces
Karo	2 tablespoons
Powdered Milk	5 tablespoons
Boiled Water	20 ounces
Karo	2 tablespoons
Lactic Acid Milk	12 ounces
Boiled Water	8 ounces
Karo	2 tablespoons

References: Kugelmass, Clinical Nutrition in Infancy and Childhood, Lippincott; Marriott, Infant Nutrition, Mosby; McClean & Fales, Scientific Feeding in Infancy, Lea & Febiger.

For further information, write Dept. SJ-2

CORN PRODUCTS SALES COMPANY
17 Battery Place, New York, N. Y.

★ Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.

Drink

Coca-Cola

TRADE MARK REGISTERED

Delicious and Refreshing

Pure refreshment

ATTENTION!

Preinventory Special!

The following high-grade Physician's office Scales are offered at a very special price subject to prior sale.

5 Mahogany finish continental Scales, 1 White Detecto Medic Scales.

Regular $35 Value While They Last $30

ROEMER DRUG COMPANY
606 N. Broadway
Milwaukee, Wis.

BISMUTH SALICYLATE

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

U. S. S. P. CO.

Physicians now have at their command a greatly improved bismuth salicylate to aid them in the control of syphilis. A shake of the bottle and the bismuth and oil quickly mix . . . does not readily form a hard mass at the bottom. Two grains of bismuth per cc.

Packaged in 2 cc. ampules, 10 cc. rubber-stoppered vial, 30 cc., 60 cc., and 500 cc. in glass-stoppered bottles.

Biologicals, ampules and glandular products of highest quality and purity.

UNITED STATES USSP STANDARD PRODUCTS

U. S. STANDARD PRODUCTS CO.
U. S. Government License No. 65
WOODWORTH, WIS.

"A supply in the bag; a supply in the office *—always!*"

No physician knows, when he starts his day, what critical situations will confront him. Because this product is essentially an emergency remedy, many physicians make a practice of keeping at hand at all times a supply of Adrenalin Chloride Solution 1:1000 (the Parke-Davis brand of Solution of Epinephrine Hydrochloride U.S.P.).

Medical men and women throughout the world have been relying on the original Parke-Davis product every hour of the day and night for thirty-five years; and the resources and personnel of the Parke, Davis & Co. laboratories of today are pledged to maintain its unvarying dependability. A request will bring the booklet "Adrenalin in Medicine" by return mail.

PARKE DAVIS

& COMPANY

Home Offices and Laboratories—Detroit, Michigan

ATLANTA BALTIMORE BOSTON BUFFALO CHICAGO CINCINNATI DALLAS INDIANAPOLIS KANSAS CITY MINNEAPOLIS NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH ST. LOUIS SAN FRANCISCO SEATTLE

"Doctor, See That Building Over There?"

"Well, that's **The Milwaukee Optical Mfg. Co.**

"I deal with **that** house at Milwaukee because it is **soundly established,** through years of successful business experience plus its **centralized** complete facilities and pleasant business transactions. You know what **that** means for dependable services.

"These are the reasons why I prefer to have **this** reliable concern work with **me.**

"Doctor, if you are **not** dealing with this dependable concern, I heartily recommend it to you."

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St., Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268-2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D., Frederick Menge, M.D., S. C. Plummer, M.D.

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)

ANNOUNCES CONTINUOUS COURSES

MEDICINE—Informal Course first of every week; Intensive Personal Courses.

SURGERY—General Course One, Two, Three and Six Months; Two Weeks Intensive Course Surgical Technique (Operative Surgery with Practice); Clinical Courses.

GYNECOLOGY—Three Months Course; Intensive Two Weeks Course starting February 15, 1937.

OBSTETRICS—Informal Course; Special Courses.

FRACTURES AND TRAUMATIC SURGERY—Informal Practical Course; Ten Day Intensive Course starting February 15, 1937.

EAR, NOSE & THROAT—Informal Course; Personal Courses; Intensive Two Weeks Course starting April 5, 1937.

OPHTHALMOLOGY—Intensive Two Weeks Course starting April 19, 1937.

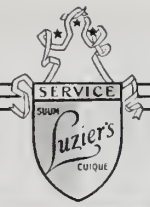
UROLOGY—General Course Two Months; Intensive Course Two Weeks; Special Courses.

CYSTOSCOPY—Intensive Course every two weeks (attendance limited).

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE AND SURGERY.

Teaching Faculty—Attending Staff of Cook County Hospital

Address:
Registrar, 427 South Honore Street, Chicago, Ill.



Quality Survives!

TO THE DOCTOR'S WIFE

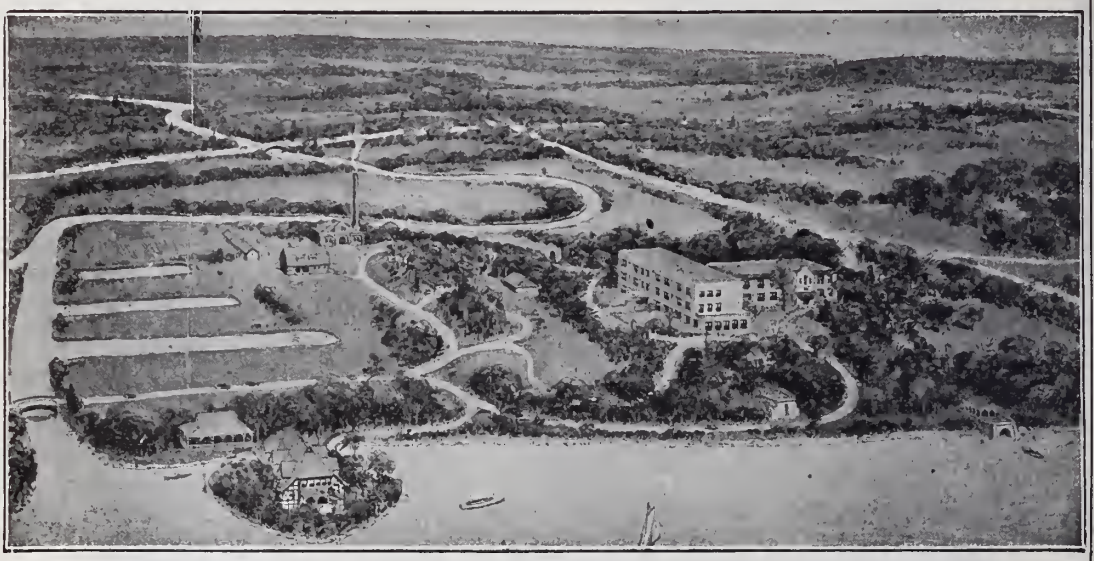
We earnestly request that you favor our Representative with an opportunity to introduce you to Luzier's Beauty Service—because, frankly, we consider you an excellent type of patron. You are active and influential in the life of your community; with you perfect grooming is a matter of habit; and certainly you, better than most women, are in a position to appreciate the two claims made for our preparations . . . We offer you cosmetics of (1) unexcelled quality * that (2) are selected to suit your requirements. It is in this latter regard that our Representative is trained to serve you . . . Your satisfaction is assured under a money-back guarantee.

* The ingredients used in Preparations by Luzier have been made known to the American Medical Association, and may be had on your husband's request.

Luzier's, Inc., Makers of Fine Cosmetics

KANSAS CITY, MO.

THE SUMMIT HOSPITAL



Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Homelike Environment

Excellent Cuisine

Moderate Rates

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

NON-CANCELLABLE

Health and Accident Insurance

and

Low Cost, Guaranteed Rate Life Insurance

THE MASSACHUSETTS PROTECTIVE COMPANIES
Worcester, Massachusetts

PERCY A. TREZISE, General Agent
5000 Plankinton Building
Milwaukee, Wisconsin

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

IN ADVISING PATIENTS ON SMOKING

WITH the many and varied claims made for cigarettes, *you* can be of assistance to your patients. With your scientific knowledge, you can discriminate between mere claims and basic facts.

Due to the use of diethylene glycol instead of glycerine, Philip Morris have been proved★ less irritating than other cigarettes... proved so conclusively that the medical profession recognizes the substantial nature of this improvement in cigarette manufacture.

Test Philip Morris on patients suffering from congestion of the nose and throat due to smoking. Verify for yourself Philip Morris superiority.

★ *Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245*
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11
Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3, 306-309

Philip Morris & Co. Ltd. Inc. **Fifth Ave., N.Y.**

For exclusive use of practising physicians

PHILIP MORRIS & CO. LTD. INC.
119 FIFTH AVENUE NEW YORK

Absolutely without charge or obligation of any kind, please mail to me

★ Reprint of papers from
N. Y. State Jour. Med. 1935, 35—No. 11, 590; Laryngoscope 1935 XLV, 149-154. Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245. ☐

For my personal use, 2 packages of Philip Morris Cigarettes, English Blend. ☐

SIGNED: _____

ADDRESS _____

CITY _____ STATE _____

WIS

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$32.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan
WINNETKA, ILLINOIS
16 Miles North of Chicago
Thoroughly Equipped Sanitarium
Hydrotherapy - Electrotherapy - Massage - Dietetics
Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department
Ideal for Convalescents
Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 2 Copyright, 1937, by The State Medical Society of Wisconsin FEBRUARY, 1937

Bleeding Before the Menopause*

By JACOB J. HORWITZ, M. D.
Milwaukee

UTERINE bleeding is probably the most frequent symptom the gynecologist is called upon to treat. Success in combating this troublesome condition depends upon the proper interpretation of the clinical signs and symptoms, both local and general, and the inauguration of therapy most effective and least harmful to the general well-being of the patient. The most common causes of bleeding are those associated with (1) pregnancy, (2) anatomical and functional diseases of the genitals including myomata, pelvic inflammations, ovarian tumors, uterine displacements, pelvic malignancies and endocrine disturbances and (3) those induced by constitutional diseases as cardiovascular lesions, thyrotoxicosis and blood dyscrasias.

In this paper the discussion will be limited to group 2 of anatomical and functional diseases of the genitals causing uterine hemorrhage from puberty through the premenopausal period.

A. Anatomical Lesions

Myomata of the uterus frequently cause bleeding before the menopause. In 586 patients with uterine bleeding due to anatomical diseases and functional disturbances of the genital organs, exclusive of malignancies and the complications of pregnancy, Schmitz found myomata to be the outstanding lesion in about 25 per cent of the cases. The bleeding most frequently occurred after the age of 36. About 50 per cent of myomata are accompanied by bleeding. A prolonged or profuse period with a 28-day cycle is the most common form of bleeding in intramural myomata. It results from interference with the normal contractility of the uterus and the pelvic hyperaemia due to the tumor mass. When the bleeding sets in with menstruation and continues for from 2 to 4 weeks, or when the bleeding is totally irregular, it is quite common to find pathologic lesions of the endometrium such as hyperplasia or endometrial polyps associated with submucous myomata. A single small submucous myoma undergoing necrosis may cause alarming hemorrhage. Irregularity in the menses in cases of myomata may be further explained on the basis of a coexisting primary endocrine dysfunction, pelvic inflammatory disease or uterine displacement. In cervical polyps there may be only slight and irregular bleeding between periods following contact, as in coitus.

For the treatment of uterine hemorrhage due to myomata, no simple or arbitrary rules can be laid down. Among palliative measures are general hygienic care, oxytocics, hemostatics, antiseptic vaginal douches, topical applications and blood transfusions to combat secondary anaemia. Curettage may temporarily control bleeding in those cases in which it is due to a hyperplasia of the endometrium or endometrial polyps, but the danger of causing necrosis of a submucous growth and infection of the myometrium must not be overlooked. Recurrence of the bleeding frequently takes place 6 to 9 months later. The real value of curettage in these cases is as a diagnostic aid in ruling out associated malignant disease of the endometrium. When palliative measures have been exhausted and the bleeding continues, recourse must be had to operative treatment or irradiation with radium or roentgen rays.

---

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

Surgical treatment does not necessarily mean hysterectomy. Pediculated submucous myomata and cervical polyps may at times be successfully treated by vaginal myomectomy and coagulation of the base. Abdominal myomectomy is performed for a pediculated subperitoneal myoma. In young women, when the growths are not too numerous or too large, myomectomy, in order to permit of reproduction, may be attempted for sessile subperitoneal myomata and even at times for intramural myomata which extend to the endometrium. If pregnancy does not follow, at least the menstrual function is thus maintained. Recent investigation points to the probability of a disturbed ovarian function in some cases after hysterectomy due to the loss of the physiologic relations between the ovary and the uterine endometrium. Myomectomy is performed comparatively rarely, and not infrequently a uterus is needlessly sacrificed.

In women under 45 years of age, where myomectomy is not feasible, hysterectomy is preferable to irradiation as the uterus may be removed in many cases without completely destroying ovarian function. Irradiation in sufficient dosage to control the hemorrhage and to cause regression of the tumor will often be followed by a premature menopause. If the cervix is entirely free of pathology, a subtotal operation is done and care is taken to suspend the ovaries in such manner as to prevent atrophy by constriction of the vascular pedicle. When there is coexisting benign disease of the cervix, such as cystic degeneration or endocervicitis, a total hysterectomy is done; or the supravaginal operation is combined with amputation or repair of the cervix or electrocoagulation.

In myomata larger than a three months' pregnancy, hysterectomy is advisable even in women over 45 years of age because of the frequency of complicating adnexal lesions, degenerative changes and associated malignancies. Malignancies of the tumor or corpus uteri may be overlooked even after diagnostic curettage.

In the presence of profound anemia out of proportion to the amount of uterine hemorrhage, surgery may be necessary regardless of age or size of growth. Such anemia may be the only symptom of a tumor undergoing degeneration.

In the absence of symptoms of degeneration, patients who are markedly obese or suffering with thyrotoxicosis, cardiovascular or other constitutional diseases should not be subjected to surgery.

Roentgen irradiation is the treatment of choice in patients under 45 years of age who are poor surgical risks, in women who are suffering with profound anemia not due to degeneration of the tumor, in patients older than 45 years where the size of the tumor or other local conditions preclude the use of radium and where constitutional diseases prohibit surgery. In the young patient a temporary and in the older patient a permanent amenorrhea is induced. The temporary amenorrhea dose of irradiation is 60 per cent of the castration dose: the latter is about 400 r units applied to the mid-pelvis through an anterior and posterior field. Roentgen irradiation is not accompanied by the troublesome uterine discharge so common with radium therapy.

Radium is indicated in a patient older than 45 years with a bleeding intramural myoma not larger than the size of a three months' pregnancy in the absence of complicating pelvic inflammatory disease, degeneration or profound anemia. Dilatation and curettage should always precede the insertion of radium to promote drainage and to rule out the presence of coexisting endometrial malignancy. The radium dose which invariably assures permanent amenorrhea and regression of the tumor is about 1,200 to 1,500 mg. element hours.

Pelvic inflammatory disease is another anatomic lesion associated with pathologic bleeding. A prolonged or profuse flow occurs in patients with otherwise regular cycles. Less often totally irregular periods occur, the interval being sometimes shortened and sometimes lengthened. The bleeding and menstrual irregularities are induced by the pelvic hyperemia and peri-oophoritis incidental to the infection. Since pelvic inflammatory disease is most frequently caused by gonorrhea and postabortal complications,

the bleeding most often occurs in early maturity at the time of life when procreation is desired. Consequently, radical procedures for the control of hemorrhage must be approached with great caution. This is particularly true in cases of primary and one-child sterility and in those women who lay stress on the menstrual phenomenon. Neuroses and maladjustments not infrequently follow in the wake of radical extirpation and sterilization.

If adequate conservative treatment has failed and careful study reveals that pelvic inflammatory disease is the sole cause of persistent hemorrhage, the more radical measures of irradiation and operation must be considered. In some cases it may be advisable to induce a temporary amenorrhea. If operative therapy is elected and the patient is young, an attempt should be made to preserve a portion of the fallopian tube to permit of pregnancy. If a subtotal hysterectomy is necessary, it may be possible to save enough endometrial and ovarian tissues to permit of the menstrual function.

Although uterine myomata and pelvic inflammatory disease play the most important role in giving rise to bleeding before the menopause, many other lesions of an anatomic nature causing hemorrhage must be carefully sought.

Uncomplicated retroversion and retroflexion may give rise to menorrhagia or irregular bleeding. This bleeding is due to hyperemia of the uterus induced by torsion of the parametria which causes interference with the venous backflow.

Uterine adenomyosis, which is frequently associated with myomata, is occasionally encountered in excessive or irregular bleeding with menstrual distress beginning well before the period and sometimes not ending until the mensis is well over.

Ovarian and parametrial endometriosis may cause abnormal bleeding and pain. It may simulate many of the signs and symptoms of pelvic inflammatory disease through its tendency to form adhesions with the rectum, bladder and intestinal loops.

Granulosa cell tumors of the ovary caused uterine bleeding in 27 of 33 such cases reported by Robert Meyer. At times there are alternating periods of amenorrhea and menorrhagia. In the 27 cases of bleeding associated with granulosa cell tumors, Meyer found hyperplasia of the endometrium and hypertrophy of the uterus in all cases. He concludes as does Schroeder, Neumann and others, that these changes are produced by increased follicular hormone from the pathologic granulosa cell growth. The mechanism of the menorrhagia is probably similar to that which occurs in pituitary deficiencies with ovarian cystosis.

Other ovarian tumors may also cause hemorrhage through a disturbance of the follicular mechanism or by causing venous congestion because of size or weight.

An examination with the speculum should never be omitted in vaginal bleeding and a careful search made for lesions of the lower genital tract.

Bleeding may be associated with ulceration due to trauma, chancroidal infection, syphilis and tuberculosis.

Spotting or at times severe bleeding may be caused by endocervicitis and cervical erosion or eversion. If a suspicious ulcer is seen, whether it bleeds or not, particularly in the premenopause, a biopsy must be done without procrastination. If the source of the bleeding seems to be from the uterine body, a curettage must be done and a microscopic examination made of the scrapings. Upon examination of 1,398 cases of vaginal hemorrhage in the premenopausal age, Keene found malignant disease in 14 per cent. Of these cases of malignant bleeding, about 75 per cent proved to be due to cervical carcinoma. In 14 per cent of malignant bleeding, fundal carcinoma was found to be the cause although this lesion is generally associated with the postmenopausal era. Malignancies of the tubes, ovaries, vagina or vulva accounted for the remaining cases of malignant bleeding. Benign cervical lesions accounted for only 6 per cent of the bleeding during the premenopausal age. Thus, when there is bleeding from a cervical lesion in the premenopause, it is well to regard the lesion as carcinoma unless microscopic examination of the biopsy specimen proves otherwise.

B. Functional Uterine Bleeding

Functional uterine bleeding is that atypical bleeding which occurs in patients free from gross pelvic pathology or constitutional diseases. The type of bleeding is not characteristic but may be an exaggeration and prolongation of the regular menses, spotting between periods or almost continuous bleeding. It may appear at any time from puberty to the menopause but occurs most frequently at such periods of life when it would seem that the stability of the endocrine mechanism is not yet secure or when it is likely to be upset by renewed or added demands. At puberty, when the cyclic rhythm is being inaugurated, pathologic bleeding is not uncommon, sometimes commencing with the first period. Functional bleeding may occur at or near the time of re-establishment of the cycle following the termination of pregnancy. More than 60 per cent of all cases of functional bleeding occur in the premenopausal age when there is a gradual recession of ovarian function.

In making a study of functional uterine hemorrhage a careful history is necessary, particularly as to the catamenia. It is necessary to rule out thrombocytopenic purpura and diseases of the vascular or vasomotor system as factors in the bleeding. A careful physical examination is made which may reveal stigmata of endocrinopathy such as abnormal secondary sex characteristics or faulty stature and fat distribution. These findings, however, are more often associated with amenorrhea. An enlarged thyroid may be found with evidence of hypothyroidism. Signs of hyperthyroidism may be present. A roentgen ray of the sella turcica may show evidence of erosion by a pituitary adenoma. At times the parathyroid and adrenal glands must be considered. The vagina is inspected and the cervix, uterus and ovaries are palpated. A rather common finding is a somewhat enlarged uterus with a soft globular body; at times an enlarged cystic ovary is felt. Determinations of the estrin level and anterior pituitary sex hormone content of the blood may be of diagnostic aid if properly evaluated.

The most characteristic pathology in functional bleeding is found upon examination of sections from the ovary and specimens of endometrial scrapings. Usually there is a definite correlation in the microscopic pictures of these tissues, first noted by Robert Schroeder (1919).

The ovary shows a persistence of graafian follicles with follicular cysts which may at times be of appreciable size. There is an absence of recent corpora lutea.

The endometrium usually reveals the picture designated as hyperplasia which is essentially an overdevelopment of its deeper portion. At times, there is only a moderate increase in the width of the endometrium with few or no enlarged glands. Again, the endometrium may be edematous and markedly thickened and may contain irregular cystic glands of varying sizes and shapes giving it the appearance so aptly designated by Novak as the "swiss-cheese pattern." Hyperplasia is always characterized by complete absence of secretion ascertained by the appearance of the glands and the differential stain for glycogen.

In about 10 per cent of the cases, instead of the picture described as hyperplasia, there is a condition first noted by Pankow (1924) which he designated "irregular or defective shedding" of the endometrium. Here the endometrial stroma is shrunken and compact and the epithelial surface is absent. The glands are collapsed and star-shaped but show evidence of secretion.

Our knowledge as to the cause of functional uterine bleeding is still incomplete. Since Zondek in 1926 demonstrated the relationship between the ovary and the anterior lobe of the pituitary, and designated the latter gland as the motor of the ovary, much intensive work has served to elucidate the mechanism of the menstrual cycle and to give us a working theory of endocrine dysfunction with hormonal imbalance as cause of the bleeding. As a basis for an interpretation of the pathologic physiology involved, it is necessary to recall the steps involved in the normal cycle.

A stimulus comes to the ovary in the form of gonadotropic hormone which is the product of the basophilic cells of the anterior pituitary. This hormone is designated as

anterior pituitary sex hormone. Aschheim and Zondek are of the opinion that the gonadotropic hormone consists of two separate fractions, one responsible for follicle ripening and ovulation, and the other concerned with luteinization of the granulosa cells. Whether the hormone consists of two portions or is a single one producing its effects through quantitative differences in secretion is still debatable. As the follicle matures, the female sex hormone, estrin, is produced which causes hyperemia and growth of the uterine endometrium. After extrusion of the egg, which occurs between the 12th and 14th day of the cycle, estrin is formed in even greater amounts than before, and a second female sex hormone, progestin (Corner and Allen), is elaborated. This hormone is produced only after luteinization of the corpus luteum and induces the characteristic premenstrual changes in the endometrium. The work of Smith and Engle (1929), Moore, and Hisaw and co-workers (1932) proves that the secretory activity of the anterior pituitary is inhibited by estrin at the height of its production. With the function of the anterior lobe thus held in abeyance, disintegration of the corpus luteum follows and ovarian activity ceases. According to Allen's "estrin-deprivation" theory, the destruction of the premenstrual endometrium and the menstrual bleeding is due to this cyclic fall in the estrin level of the blood.

Cases of functional uterine bleeding probably operate under a similar mechanism. That bleeding does not depend entirely on areas of necrobiosis or increased diapedesis from engorged blood vessels associated with hyperplasia is shown by the fact that the atrophic secretory endometrium of "irregular shedding" is also associated with hemorrhage. Anspach and Hoffman observed that there is no single type of endometrium constantly associated with either functional bleeding or amenorrhea and that bleeding is completely independent of the type of endometrium. Further evidence that the hemorrhage is due to an extra-endometrial factor is offered by Wilson and Kurzrok (1936) who have pointed out that endometrial hyperplasia persists long after the bleeding has been controlled by endocrine therapy.

On the other hand recent work has thrown doubt on the theory that estrin deprivation entirely explains either bleeding during the normal menstrual cycle or functional uterine bleeding. Thus it has been found by Werner and Collier (1933) that bleeding occurred in human castrates during the uninterrupted administration of estrin. Secondly, it is reported that normal cyclic bleeding is not affected by large doses of estrogenic substances (Hartman, Fluhman, and Corner). It is further observed that uterine bleeding may occur at times when there is a high level of estrogenic hormone in the blood (Engle, Frank and Goldberger, Fluhman and others). Then again, Corner, Engle, Smith and Shelesnyak have demonstrated that progestin may inhibit the bleeding which results in monkeys from the cessation of injections of estrin. Hartman, Firor and Geiling (1930) have shown that there can be no bleeding without the pituitary.

Consequently, Wilson and Kurzrok believe that bleeding per se is due to a special hormone elaborated by the anterior lobe of the hypophysis after its stimulation by estrin. This bleeding hormone is not gonadotropic but acts directly on the endometrium unless its action is inhibited by progestin. The bleeding stops when the bleeding hormone is exhausted.

This hypothesis seems to offer a satisfactory, but as yet unsubstantiated, explanation for functional uterine bleeding.

In the anovulatory type of bleeding, which is the most common, follicle persistence and failure of luteinization prevent the formation of progestin. Thus the secretion of the bleeding hormone, which is estrin-stimulated by way of the pituitary, is uninhibited and induces bleeding through direct action on the endometrium. In ovulation bleeding, which occurs at about the middle of the cycle, the bleeding hormone is released at the time of ovulation due to "a disturbed quantitative or temporal balance between the follicular hormone and progestin."

The treatment of functional uterine bleeding depends on the underlying cause of the dysfunction and severity of symptoms, as well as other factors such as constitutional

condition, age and economic status of the patient.

Endocrine therapy is effective in functional bleeding and is particularly valuable in the bleeding of puberty and maturity where more radical measures are undesirable. However, it should not be undertaken empirically but only after close observation of the patient with an attempt to understand the pathologic physiology involved. If feasible, a curettage is first done to rule out endometrial carcinoma and to determine the associated type of endometrium. Sometimes this measure in itself will, at least temporarily, cause a cessation of bleeding particularly if the endometrial type is "irregular shedding and regeneration." If curettage has not controlled the bleeding, endocrine therapy is started.

Pregnancy urine extract (follutein, antuitrin-S, antophysin) which contains a preponderance of the gonadotropic hormone, Pituitary B, is injected intramuscularly in doses commensurate with the severity of the bleeding. Its therapeutic effect is thought to be produced through luteinization of the atretic follicles or by a reduction of their estrin content through a destructive action upon them. Wilson and Kurzrok believe that pregnancy urine extract causes an inhibition of the bleeding hormone by direct effect on the anterior pituitary gland. Pregnancy urine extract may be administered in combination with extract of the anterior lobe of the pituitary (prephysin, gynatrin, antuitrin), containing the gonadotropic hormone, Pituitary A. The effect of the latter is to promote growth and rupture of the follicles. Recently, the active principle of the corpus luteum, progesterone, has been made available in potent doses for hypodermic injection. It is preferably administered in the latter part of the cycle and is used on theoretical grounds to counterbalance the estrin excess occurring in functional bleeding. Its value as a substitute for progestin must still be established.

Desiccated thyroid is given in hypothyroid types and appropriate medical or surgical treatment is instituted in patients with thyrotoxicosis. This is important in that the endocrine chain is affected by the thyroid as well as by other glands of internal secretion. Blood transfusions are given in severe grades of anemia, and calcium is used to increase the coagulability of the blood. Moccasin venom or cevitamic acid will reduce the permeability of the vessel walls. Oxytocics are used when the contractile power of the uterus is defective.

More radical forms of treatment are used when endocrine therapy and other conservative measures fail or when profound anemia or other conditions prevent a fair trial with organotherapy. Bleeding can be effectively combated by irradiation with roentgen rays or radium in such doses as to produce temporary amenorrhea in young women and castration in women approaching the menopause. In the latter age, vaginal hysterectomy is often the treatment of choice. Cautious irradiation of the pituitary with roentgen rays has proved efficacious in the hands of a few experts, but is not to be generally recommended.

Conclusions

Uterine bleeding is merely a symptom. Proper interpretation of the clinical signs and symptoms is necessary before it is possible to inaugurate the form of therapy that is most effective and least harmful to the general well-being of the patient.

Bleeding before the menopause may be caused by the complications of pregnancy, anatomic and functional diseases of the genitals and constitutional disturbances.

When there is bleeding from a cervical lesion in the premenopause it is well to regard the lesion as carcinoma unless microscopic examination of the biopsy specimen proves otherwise.

Endocrine therapy is effective in functional bleeding but should be undertaken only after close observation of the patient with an attempt to understand the pathologic physiology involved.

COLLATERAL READING

Schmitz, H.: Treatment of Uterine Hemorrhages Due to Benign Lesions, with Radium and Roentgen Rays. Am. J. Obst. & Gynec., 28:355–364 (September) 1934.

Meyer, R.: The Pathology of Some Special Ovarian Tumors and Their Relation to Sex Characteristics. Am. J. Obst. & Gynec., 22:697–713 (November) 1931.

Keene, F. E.: The Interpretation of Irregular Genital Bleeding During and After the Menopause. Pennsylvania M. J., 38:774–778 (July) 1935.

Schroeder, R.: Die Pathogenese der Meno-und besondere der Metrorrhagien. Arch. f. Gynäk., 110:633–658, 1919.

Pankow, O.: Über Uterusblutungen, bedingt durch Regenerationstörungen des Endometrium. Monatschr. f. Geburtsh. u. Gynäk. 67:71–76 (August) 1924.

Zondek, B., u. Aschheim, S.: Hypophysenvorderlappen und Ovarium, beziehungen der endokrinen Drüsen zur Ovarialfunktion. Arch. f. Gynäk., 130:1–45, 1927.

Meyer, R. K., Leonard, S. L., Hisaw, F. L., and Martin, S. J.: Influence of Estrin on the Gonad Stimulating Complex of the Anterior Pituitary of Castrated Male and Female Rats. Endocrinology. 16:655–665, (November–December) 1932.

Smith, P. E.: Hypophysectomy and a Replacement Therapy in the Rat. Am. J. Anat. 45:205–275, (March) 1930.

Allen, E.: Menstrual Cycle of the Monkey (Macacas Rhesus). Contrib. to Embryol., Carnegie Inst., Wash. #98. 19:1–44, 1927.

Engle, E. T.: Ovarian Responses. J.A.M.A., 93:276–277 (July 27) 1929.

Engle, E. T., Smith, P. E., and Shelesnyak, M. C.: The Role of Estrin and Progestin in Experimental Menstruation. Am. J. Obst. & Gynec, 29:787–797 (June) 1935.

Anspach, B. M., and Hoffman, J.: Endometrial Findings in Functional Menstrual Disorders. Am. J. Obst. & Gynec., 28:473–481 (October) 1934.

Wilson, L., and Kurzrok, R.: Excessive Uterine Bleeding of Functional Origin. Am. J. Obst. & Gynec., 31:911–929 (June) 1936.

Corner, C. W.: Influence of Ovarian Hormones, Estrin and Progestin, Upon Menstrual Cycle of Monkey. Am. J. Physiol., 113:238–250 (September) 1935.

Hartman, C. G., Firor, W. M., and Geiling, E. M. K.: Anterior Lobe and Menstruation. Am. J. Physiol., 95:662–669 (December) 1930.

DISCUSSION

Dr. Homer Carter (Madison): Dr. Horwitz has presented a very complete classification of the possible causes of bleeding before the menopause. He has given a very practical discussion of these causes and has indicated various methods of treatment. It has been a pleasure to follow his line of thought. I wish to emphasize a few points and to add a few comments.

First, a careful and thorough diagnosis of the cause or causes of the bleeding and a proper interpretation of these causes is absolutely essential before starting any efficacious or extended therapy.

Referring to bleeding before the menopause caused by inflammation or infection of the lower genital tract, we have seen several cases of mycelium fungoid infection. This might be added to the list of causes given. As Dr. Horwitz stated, "spotting" may often be due to a marked infectious endocervicitis. We might add that profuse vaginal bleeding may result from the tearing down of vaginal or cervical adhesions. We have found the hot, copious gallon douches, taken in the home, to be a particularly efficient adjunct to other methods of clearing up many vaginal and cervical inflammations. Cauterization of the cervix is never wise (in fact is often dangerous) in such infections until the acute inflammation has abated.

Concerning uterine myomata, we feel that all cases of uterine bleeding where myomata are suspected but not palpated should have a diagnostic curettage. In the case of small fibroids at or near the menopause, where malignancy has been definitely ruled out, irradiation is preferable to surgery, especially in the doubtful or poor surgical risk. After forty-five years, due to the danger of malignant changes, hysterectomy is usually preferable to roentgen or radium therapy, the condition of the patient as a surgical risk always being considered, however. Thus roentgen therapy may be the method of choice either before or after forty-five years. Always remember that radium should never be used without first clearing up a local infection.

Functional bleeding is usually an hormonal dysfunction and occurs especially at puberty, on reestablishment of the menstrual cycle after a pregnancy, and at or near the menopause. Here again a careful physical examination is especially important where such a cause is suspected. One should note any evidences of faulty stature, faulty fat distribution, and faulty or unusual hair distribution. As we have more and more evidence that the pituitary and the thyroid are the motors of the ovary, we find many cases of irregular bleeding at puberty, yielding most favorably to thyroid by mouth, or, if the blood calcium is reduced, to parathyroid and dicalcium phosphate and vitamin D by mouth.

Anovulatory bleeding, most commonly seen as prolonged menstrual bleeding, may be due to failure of the graafian follicle to rupture, therefore resulting in no corpus luteum hormone being present to give the normal checking of the flow.

Dr. Horwitz has given a very helpful discussion on the pituitary relationship to the menstrual cycle, has shown how pituitary dysfunction may cause abnormal bleeding, and has indicated some practical phases of endocrine therapy in relation to functional bleeding.

In concluding these remarks concerning premenopausal bleeding, may I call your attention again to its relation to the cancer problem. Eighty per cent of premenopausal bleeding is from benign causes. Fifty per cent of postmenopausal bleeding is from malignant lesions. Again, excessive or intermittent bleeding (i.e., menorrhagia or metrorrhagia), in the late premenopausal period, is from malignant cause in one out of six cases, while such abnormal bleeding, particularly a metrorrhagia in the postmenopausal years, has a malignant cause four out of six times.

Finally, irregular bleeding at the menopause or later means cancer until cancer has been excluded.

Bleeding During Early Pregnancy*

By JOHN DALE OWEN, M. D.
Milwaukee

VAGINAL bleeding is the alarming symptom that brings into our offices women early pregnant. Gestation itself accounts for more than ninety per cent of such cases. I intend to consider the commoner causes of such bleeding, to dismiss the rarer and less important with a few words, and to stress proper diagnosis in the more common.

Physiologic Bleeding

Spruck[1] observed periodic vaginal bleeding with no demonstrable cause in nineteen out of nine thousand pregnant women, (0.21 per cent). This bleeding approached the normal menstrual flow, in both amount and duration, in only 0.05 per cent.

Generally speaking, inspection of the vagina and cervix discovers a local lesion as the cause. However, continued ovulation and menstruation occur occasionally during pregnancy. I have followed one patient who menstruated normally during her entire gestation. Wintz[1] concluded, in his few cases, that menstruation was normal. By anatomical examination he also demonstrated that ovulation and corpus luteum formation were continuing.

The blood lacks the mucoid sheen observed in the bleeding during abortion. It contains desquamated endometrium, debris, and bacilli, which account for its characteristic odor. Furthermore, the blood does not coagulate.

Pathologic Bleeding Not Directly Due to Pregnancy

Careful inspection of the vulva rarely reveals bleeding varicose veins. The same examination will show the presence or absence of vulvar injuries, erosions, or new growths.

If the bleeding appears through the introitus, one performs a careful inspection of the vagina and cervix. The importance of this procedure cannot be stressed too highly. Proper asepsis is, of course, a necessity. The vulva and the speculum used should be sterilized. It is easy to discover vaginal bleeding points from erosions, new growths, and injuries following attempted criminal abortion. The blood will be normal in appearance, and it will coagulate. If a new growth is present, slides prepared from the cellular elements, after centrifugal separation, show tissue debris and abnormal cells. The patient generally complains of intermittent bleeding following coitus or douching. The treatment is variable, depending upon the cause.

Inspection of the cervix uteri reveals the presence or absence of a polyp. Hemorrhage from a polyp usually follows secondary infection and erosion into a blood vessel. The bleeding may be of any quantity. Again, it often is related to sexual functions or trauma. If fibro-myomata of the cervix exist, they can be diagnosed by the size and distortion of the vaginal portion of the cervix. Palpation reveals a hard tumefaction imbedded in the cervical musculature. Disturbed circulation, oedema, necrosis of tissue, secondary infection, and erosion into blood vessels at points underlying the cervical epithelium, cause bleeding. In the absence of frank hemorrhage, one should follow a conservative form of treatment.

Bleeding may result from a cervical erosion. Palpation often causes fresh hemorrhage. The blood loss generally is slight. The history is the same essentially as that of the conditions I have mentioned, except that it often antedates the pregnancy which it complicates. Mild cauterization, with silver nitrate particularly, constitutes safe treatment during early pregnancy.

One finds carcinoma of the cervix, the most serious complication of early pregnancy, in one case out of 2,500 to 3,000. Chart 1 shows that sixty-eight cases have been reported in 181,552 deliveries; an incidence of 0.0374 per cent. There are three reasons for

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

this low incidence: carcinoma is a disease of late life, while pregnancy is a function of youth and middle age; fertilization, due to the altered cervix, may become mechanically or chemically impossible; and coitus often becomes obnoxious or mechanically impossible.

CHART 1

Author	Total cases reviewed	Complicated by carcinoma	per cent
Glakner	15,000	1	0.0067
Gross	1,538	1	0.065
Hirst	12,484	1	0.08
Mendel	29,962	24	0.08
Peham	82,825	25	0.03
Stockel	18,000	8	0.04
Wertheim	2,000	1	0.5
Johns Hopkins	1,500	5	0.03
Univ. Chicago	18,243	2	0.01
Kerstner			0.05
Total	181,552	68	Av. 0.0374

The patient complains of a burning, watery leucorrhoea and a variable vaginal hemorrhage. When one suspects carcinoma, it is imperative that a bimanual recto-abdominal examination be done on each patient complaining of vaginal bleeding. One then can determine any degree of parametrial infiltration, thickening of the utero-sacral ligaments, or immobilization of the pelvic viscera. If a fungating growth is present, inspection reveals a bleeding area with the typical pearl gray, granular, and necrotic surface commonly seen. Mild trauma produces bleeding. There is no contraindication to removal of cervical tissue for biopsy when any suspicion of carcinoma exists. As in the case of vaginal neoplasm, hemorrhage depends upon degeneration, secondary infection, and erosion into blood vessels. The blood may contain cells with mitotic figures, besides debris and leucocytes. Often the typical foul odor of carcinomatous degeneration is present.

One may expect rapid extension of the cervical carcinoma complicating pregnancy because of the great increase in blood supplied to the pelvis. Meyer, Wagner, and Werbel[2], however, have observed an apparent retardation of growth during pregnancy. Weibel[1] reported fifteen operable cases. His operative mortality was 4.1 per cent. Ten cases were well after five years or more.

The treatment depends upon the extension of the growth present and the duration of the pregnancy. Irradiation causes abortion or death of the embryo. Mendel[3] reported twenty-seven cases, all of which had been irradiated during their pregnancies. These produced four abortions, five malformed infants, twelve normal infants, and six with intracranial abnormalities. Goldstein[3] reported sixteen unhealthy children from twenty-four women irradiated.

Neill[3] advised the use of two to three grams of radium packed against the cervix for sixty or ninety minutes only. To remove the vaginal pack within a short time prevents abortion from irritation of the uterus due to the pack itself. Boer[4] states that irradiation up to 3,000 milligram-hours apparently does not harm the foetus of twenty-eight weeks or older, provided that the head is not engaged and that it lies five centimeters distant from the radium. A few authors still advocate immediate Wertheim operation.

Focal endometritis with ulceration exists occasionally. This may cause bleeding before the decidual reaction of pregnancy has been completed. Healing occurs soon due to the increased pelvic vascularity. Fibromyomata are the most common pelvic tumors found coincidently with pregnancy. They may cause bleeding. The blood is normal in consistency and appearance. If the fibromyomata do not initiate abortion, they can be considered at the time of delivery.

Pregnancy superposed upon an adenocarcinoma of the uterus is too rare to merit much consideration. Schuman[1] reported a case in which diagnostic curettage revealed adenocarcinoma. Following hysterectomy, a two-and-a-half-month embryo was found in the uterine cavity.

Pathologic Bleeding Directly Due to Pregnancy

Fifty cases of cervical pregnancy have been reported.[1] The cervical epithelium has little or no power to form a decidua[1]. Many authors aver that the decidual reaction occurs just beyond the internal os, and that the gestation sac lodges in the cervical canal. The diagnostic triad consists of brisk vaginal bleeding; complete absence of uterine cramps

or pelvic pain; and palpation of an enlarged, pear-shaped cervix containing the embryo. Crousse[5] reported a case wherein the initial hemorrhage caused the death of the patient, because the cervix was not able to contract.

About 681,000 abortions occur annually in this country. Because of this, 8,000 to 10,000 women die. In other words, forty-three per cent of all pregnancies terminate before the seventh month,[1] and 50 per cent of mothers dying during childbirth die from abortion. One half of these are cases of criminal abortion.

Vaginal bleeding and abdominal cramps constitute the constant complaint. These follow an amenorrhoea of varying length; three fourths of all abortions occur during the second and third months.[1] Generally speaking, the amount of bleeding depends upon the stage of the pregnancy. During the first six weeks, the embryo has a decidual attachment only. Abortion often is complete and the bleeding is very little. As the placenta forms, the embryo becomes firmly attached and abortion is accompanied by greater hemorrhage.

Threatened abortion exists when blood-tinged mucus is passed, occasional cramps are felt, and the cervix is softened but is not dilated or effaced. The embryo is alive, and the Friedman test is positive.

Imminent abortion is diagnosed when the cervix is partially dilated and effaced, but the products of conception are retained. Bleeding is moderate to profuse; the blood contains cervical mucus and decidual cells of pregnancy.

Inevitable abortion follows. The products of conception protrude through the external os. Vaginal bleeding generally is fresh and profuse. This stage of abortion is further classified into complete or incomplete types. Incomplete abortion usually occurs after the third month, when the placenta is well formed and the embryo well attached. The bleeding naturally is more profuse when partial retention of the embryo or membranes occurs. The Friedman test will remain positive for forty-eight hours after complete evacuation of the uterus. If sufficient living placental tissue be retained, the test will continue positive until this tissue has been removed.

Any of these kinds of abortion may be further classified into spontaneous or induced, and septic or aseptic. The flow in septic abortion may be purulent and foul smelling.

Watson, Tew, and others[6, 7] have reported good results from the administration of wheat germ oil, containing the "anti-sterility vitamin E," to patients who abort habitually and in cases of threatened abortion. The lutein hormone (progestin) of the ovary inhibits uterine contractility. Doses of one international unit daily, until bleeding ceases, sometimes will inhibit the abortion.

The treatment of imminent or inevitable abortion depends upon the amount of hemorrhage, and the presence or absence of a puerperal infection. If hemorrhage is serious, the blood volume should be restored by transfusion whenever possible before operation is performed. The uterine curette should not be used. When evacuation is necessary, the operator's finger or a placental forceps should be used to free the gestational product from the uterine wall. If sepsis exists, conservative treatment is better.

Litzenberg[1] defined missed abortion as "the retention of the products of conception two months or longer after the death of the embryo." Diagnosis often is difficult unless the patient has been under our care for some time. The history is that of amenorrhoea followed by vaginal bleeding which has diminished in amount. The physician is consulted weeks or months later because of the failure of the uterus to enlarge, the continuance of vaginal bleeding, or the absence of expected fetal movements. The uterus is found to be hard, and definitely smaller than one would expect at that stage of pregnancy. Re-examination at a later date may show further decrease in its size. A slight rusty flow may issue from the cervix. The patient may complain of lassitude, nausea, vomiting, headache, and a regression of mammary signs and symptoms. The Friedman test is negative.

Evacuation with the finger should be attempted. If cervical dilatation cannot be ac-

complished easily, or if the fetus is too large to remove through the partially dilated cervix, vaginal hysterotomy should be performed. Severe hemorrhage often accompanies the operation.

Extra-uterine pregnancy causes the death of one thousand women yearly in this country. Tubal pregnancy occurs once in every three hundred gestations. As seen in chart 2, about one fourth of women tubally pregnant died before operation could be performed. The majority had symptoms for five or more days before seeking help.

CHART 2

	15 States	N. Y.	Phil.
Total maternal mortality	7,380	2,041	717
Ectopic deaths	314	120	33
Ectopic deaths, per cent	4	5.9	4.6
Died without operation	109 (34.7%)	29 (24.1%)	7 (21.2%)
Deaths from sepsis	65 (31.7%)	35 (30.4%)	8 (30.8%)
Symptoms 5 days or longer	84%	79.1%	Majority

The commonest site of implantation is the ampulla of the tube, less common the isthmus, and rarely the interstitial portion. Ovarian and abdominal varieties are rare.

The fate of the embryo and the danger to the mother depend upon the site of implantation. Generally speaking, if the ovum is lodged in the lumen of the tube, abortion into the peritoneal cavity, or rarely, into the uterus, occurs. Concealed hemorrhage is moderate in amount. Prostration is not severe, and the pain is recurrent. Secondary implantation on the ovary or other abdominal viscera rarely occurs. If bleeding continues, an hematocele is formed, and pelvic peritoneal irritation results. When the ovum is lodged in the wall of the tube, and particularly in the interstitial portion, external rupture, accompanied by great, tearing pain, rapid collapse, and severe or fatal hemorrhage, ensues. Occasionally rupture into the folds of the broad ligament occurs. The most constant symptoms here are pain in the rectum and tenesmus.

The history of a skipped or delayed period, followed by vaginal spotting, suggests an ectopic gestation. A decidual cell reaction occurs in the uterine cavity. Sooner or later the decidua separates, and slight vaginal bleeding follows. The blood does not coagulate. The decidua is expelled in shreds or as a cast of the entire uterine cavity. The finding of decidual cells only in the material removed by curettage for a suspected abortion will establish the existence of an ectopic pregnancy.

Ectopic pregnancy occurs more often in multiparae and in women who have a scar in the iliac region. This fact suggests that these patients have had pelvic inflammatory disease, or a corrective uterine operation, which may be followed by prolapse, oedema, or kinking of the fallopian tubes. The patient may complain of pain in the shoulder, syncope, dyschesia, dysuria, slight jaundice, chills, and vomiting. If active hemorrhage has occurred, the pulse is fast and thready, the blood pressure is low, the temperature is normal, and a thin white line frequently appears at the junction of the lips and cheek. In very thin patients, a purplish discoloration may occur around the navel. The red blood count falls and the white blood count rises.

The uterus is found slightly enlarged, but inelastic. If an interstitial ectopic pregnancy is present, the superior fundus is enlarged unilaterally. If bleeding has occurred into the peritoneal cavity, motion of the cervix is very painful. A semi-cystic mass occupies the cul-de-sac, and varying degrees of unilateral abdominal rigidity exists. If rupture has not occurred, an adnexal mass is felt. The blood descends through the cervical os.

The Friedman test is positive as long as the chorionic epithelium is living. Graves[8] reported that the Friedman test was positive in eleven out of fourteen cases of ectopic pregnancy.

Shock, if present, should be treated first. This is done best by blood transfusion. The involved tube, or ovary, should be removed by a rapid operation. One always should inspect the opposite adnexum with care since bilateral tubal gestations do occur. The larger clots should be removed, and auto-

transfusion of the uncoagulated blood may be done if desired.

Hydatidiform mole (cystic degeneration of the chorion, vesicular mole, or myxoma chorii) is a lesion of the foetal portion of the gestational sac. The extremities of the chorionic villi are converted into transparent, various-sized cysts, which contain a clear, viscid fluid. Clusters form which resemble white grapes. This degeneration may involve a portion or all of the chorion. Mall[3] found the embryo present in more than sixty-four per cent of his specimens. The incidence is about three moles to one thousand pregnancies and abortions. Moles occur more frequently in multiparae around thirty years of age.

Vaginal bleeding is the commonest complaint. The flow generally is slight, rusty, and serous. One or more of the grape-like cysts may be found in the discharge. If the cervix is open, the grape-like vesicles may be felt and removed. Foetal movements and heart tones are absent. Headache, nausea, vomiting, oedema of the ankles, and scotomata may be the primary complaints; these are caused by a sudden and overwhelming toxemia of pregnancy. Hypertension and measurable albuminuria accompany the toxemia. Examination shows an enlarged uterus, which is soft and elastic to the touch; often the enlargement is disproportionate to the length of the pregnancy. Lutein cysts of the ovaries frequently are felt in the cul-de-sac. These apparently are due to the effect of the anterior hypophysis upon the ovary. The hypophysis originally is stimulated by the pregnancy hormone elaborated by the placenta.[9, 10, 11] The cysts are absorbed when the mole is removed and the activity of the chorion ended.

Hydatidiform mole is a potentially malignant tumor. The immediate dangers are hemorrhage, perforation of the uterus, and puerperal sepsis. The maternal mortality is ten per cent.

The Aschheim–Zondek and Friedman tests are helpful for diagnosis, and particularly for prognosis. Erhardt[12] found 260,000 to 520,000 mouse units of anterior pituitary-like hormone per liter of urine in a case of hydatidiform mole. Only 8,000 to 10,000 mouse units per liter are excreted during a normal pregnancy. Mazer[11] stated that one cubic centimeter of urine from a woman pregnant five months will give a positive Friedman reaction, but that only one twelfth of one cubic centimeter of the urine from a patient with an hydatidiform mole will suffice. He postulated this as a method of early diagnosis. Because of the high production of anterior pituitary-like hormone, the Friedman test may remain positive for as long as two months following evacuation of a mole. Persistent positive Friedman tests after this time, particularly when quantitative determinations are done, denote the presence of living chorionic tissue. This means only one thing: a chorio-epithelioma is present, and metastases are occurring. For this reason the Friedman test should be performed every two months, for two years, on the urine of any patient who has had a mole.

Chorio-epithelioma develops in from 5 to 10 per cent of patients who have had an hydatidiform mole.[13, 14] Forty-five per cent of chorio-epitheliomata follow mole, 30 per cent follow abortion, and the remainder follow ectopic gestation and labor at term.[15]

This most malignant tumor usually has not been diagnosed until metastasis has occurred. Hemoptysis following pulmonary extension is commonly the first symptom. The history generally is that of continued or renewed vaginal bleeding following a pregnancy. A long latent period between the pregnancy and the occurrence of the malignancy may occur. Kroesing[16] reported a case where the initial symptoms of malignancy occurred five years following the extrusion of a mole. The uterus generally is found to be enlarged. Curtis[17] stated that Hegar's sign is very easy to elicit. Vaginal metastases may be seen.

Diagnostic curettage rarely aids in diagnosis. There may be no uterine lesion available to the curette. On the other hand, there is so little difference between the normal early chorionic epithelium and that in which carcinomatous changes are present that the microscopic picture alone will not

suffice. We may depend upon the Friedman and Aschheim–Zondek tests for diagnosis, however. Chorio-epithelioma produces even larger amounts of the anterior pituitary-like hormone than does a mole. Positive tests have been obtained by using 1/360 as much urine as is necessary to cause a reaction when the urine of a normally pregnant woman is used. Leventhal[14] operated upon a woman solely upon the finding of a positive Aschheim–Zondek test after injecting urine diluted one hundred times. The patient had a chorio-epithelioma. I am now caring for a woman from whom an hydatidiform mole was evacuated. The Friedman test was still positive sixteen days later. It has been negative since that time. Six pathologists reviewed microscopic sections. Three of them, including one at the Mayo Clinic, diagnosed chorio-epithelioma. The other three regarded the sections with apprehension.

The treatment is total hysterectomy followed by complete irradiation of the pelvis and of the site of any metastases known.

REFERENCES

1. Curtis, A. H.: Obstetrics and Gynecology. Philadelphia, W. B. Saunders Company, 1934.
2. Miller, J. R.: Carcinoma of Cervix Uteri with Eight Months Pregnancy. New England J. Med., **211**:402–404 (August 30) 1934.
3. Neill, W., Jr.: Pregnancy Complicated by Carcinoma of Cervix. Am. J. Obst. & Gynec., **30**:414–419 (September) 1935.
4. Boer, J. L.. Carcinoma of Cervix Complicated by Pregnancy. S. Clin. North America, **16**:51–61 (February) 1936.
5. Croussé, R.: Cervical Pregnancy; Death of Patient from Hemorrhage during Miscarriage; Case. Ann. Inst. Chir. de Bruxelles, **35**:1–8 (January 15) 1934.
6. Watson, E. M.: Clinical Experiences with Wheat Germ Oil (Vitamin E). Canad. M. A. J., **34**:134–140 (February) 1936.
7. Watson, E. M., and Tew, W. P.: Wheat Germ Oil Therapy. Am. J. Obst. & Gynec., **31**:352–358 (February) 1936.
8. Grave, F.: The Aschheim–Zondek Test in Relation to Gynecological Diagnosis. J. Lancet, **55**:81–82 (February) 1935.
9. Kimbrough, R. A., Jr.: The Value of Hormonal Study in the Diagnosis of Chorionepithelioma. Am. J. Obst. & Gynec., **28**:12–17 (July) 1934.
10. Mathren, A., and Palmer, A.: Early Diagnosis of Chorio-Epithelioma. Surg., Gynec. & Obst., **61**:336–344 (September) 1935.
11. Parish, T. N.: A Thousand Cases of Abortion. J. Obst. & Gynec. Brit. Emp., **42**:1107–1121 (December) 1935.
12. Beasley, B. T.: Chorio-Epithelioma and Hydatidiform Mole; Report of Four Cases. South, M. J., **25**:585–591 (June) 1932.
13. Beck, A. C.: Obstetrical Practice. Baltimore, The Williams and Wilkins Company, 1935.
14. Leventhal, M. L., and Laphir, W.: Chorionepithelioma. J.A.M.A., **103**:668–671 (September 1) 1934. 1934.
15. Black, W. T.: Chorio-Epithelioma of the Uterus. Am. J. Surg., **20**:638–654 (June) 1933.
16. Garber, M., and Young, A. M.: Early Chorionepithelioma Arising in Hydatidiform Mole. Am. J. Obst. & Gynec., **32**:321–328 (August) 1936.
17. Curtis, A. H.: Chorio-Epithelioma of the Uterus. Surg., Gynec. & Obst., **54**:861–864 (June) 1932.

DISCUSSION

Dr. R. E. McDonald (Milwaukee): Bleeding during the early weeks of pregnancy may result from one or more of many conditions which have been so comprehensively considered by Dr. Owen in his paper.

The very fact that much can be done through early recognition and proper treatment of some of these conditions to avoid unhappy results makes it imperative that women seek prenatal care early.

The figures quoted, and the experience of each of us whose practice includes obstetrics, emphasizes the large percentage of pregnancies that terminate in abortion as compared with the number of live births each year. Though many of these cases represent unwanted pregnancies, there still remains a large number of undesired abortions. Yet, how much is being done to help these women to carry their pregnancies successfully to term?

Those whose pregnancies repeatedly fail in the first few weeks—"habitual aborters" if you will—and the actual cases of threatened abortion are the ones whose problems must be met with direct action rather than a policy of laissez faire.

When a woman is known to be or is thought to be pregnant the earliest signs of threatened abortion demand immediate treatment. Such premonitory signs as heaviness in the pelvis, dragging backache, crampy pains in the lower abdomen, and bleeding, no matter how slight, must be regarded as warning signs of an impending abortion. The patient must be put to bed, at absolute rest, at once. This is no time to employ mild sedation. Morphine in quarter grain doses, either alone or in combination with atropine, should be given every four hours until all pain and bleeding have stopped. Later on, a suppository containing one grain of opium, which is slowly absorbed from the rectum, may be used to keep the patient quiet. Elevation of the foot of the bed, to relieve pressure upon the region of the internal os, and avoidance of catharsis until there is no further bleeding are to be considered as routine procedures in managment.

To strike quickly, with an adequate dosage of morphine, is to succeed many times where lesser sedative medication will fail. Much time will be saved and the outcome will usually be determined one way or the other quite promptly.

After all symptoms have subsided, attention may then be directed toward emptying the bowels. An oil retention enema, to soften the feces, followed a few hours later by a soap water enema will suffice.

When pain has stopped, but slight bleeding continues, one wonders how long he is to persist in treatment with the hope of continuing the pregnancy. Unnecessary treatment in the case of a dead ovum may be avoided by employing the Aschheim–Zondek test or the Friedman modification of it. This becomes negative within about forty-eight hours after the death of the ovum. One must keep in mind, however, that a positive test does not necessarily insure a living foetus for the presence of fragmentary portions of chorionic tissue nourished by the maternal blood stream will give the same reaction. Failure of the uterus to enlarge, when we feel certain that the gestational products have not passed, plus a negative Friedman are the only signs by which we may positively say that the foetus is dead.

Not infrequently women who bleed quantities sufficient to make one believe that abortion is inevitable go on to deliver a viable child. Hasty diagnosis and failure to treat conservatively are therefore never justified except in cases of dangerous hemorrhage.

Where evacuation of the uterine contents becomes necessary, as in incomplete abortion or inevitable abortion with a dead foetus, the methods of finger curettage or removal with a placenta forceps are to be stressed as the safest and most desirable.

In relation to the necessity for removing uterine contents, I should like to add the belief that all too often packing the uterus is done as a routine measure. Certainly it is done more often than is necessary. If the secundines have been entirely or for the most part removed, one rarely encounters severe hemorrhage that cannot be controlled with oxytocic drugs. Packing, unless absolutely necessary, should not be resorted to since it constitutes one more invasion of the uterine cavity and thereby further predisposes the patient to infection. More women succumb each year to infection than die from hemorrhage.

As an adjunct to the treatment of these cases, one may employ wheat germ oil containing the antisterility vitamin E. Watson and Tew have published results obtained with this form of therapy in a small number of cases which show that the progress of threatened abortion has been arrested in approximately 60 per cent. Some clinicians, however, feel that the benefits to be obtained from the ingestion of vitamin E cannot be derived rapidly enough when such therapy is begun at the first threatening signs of abortion.

Of more value, it appears, are the figures shown by these same workers, together with the results of Vogt–Möller, Shute and others which indicate that in the field of "habitual abortion" definitely encouraging effects are being obtained by the daily administration of 3 to 6 cc. of wheat germ oil until the patient is well beyond the time that the abortions usually occurred. The combined figures from these independent studies show that an average of 75 per cent of the women so treated have carried on through their pregnancies to deliver viable infants. Previously, in the same group, from two to fifteen abortions were recorded without the birth of a living child.

Shute has shown that the blood serum of some women on naturally deficient vitamin E diets, as well as the serum of his test animals which had been placed on such deficient diets, was anti-proteolytic to solutions of tryptic ferments. Such women were found to be unsuccessful in carrying their pregnancies to a fruitful termination. Similarly, the test animals with E-avitaminosis, manifested by the anti-proteolytic factor, resorbed their foetuses. Upon feedings of vitamin E, in the form of wheat germ oil, the animals subsequently bore living young. It was found, on the basis of these results, that the blood serum of a large group of aborting women, upon the addition of vitamin E to their diets, could be made normally digestible to tryptic solutions. In this state they were able to carry pregnancies to term, or nearly so.

In threatened abortion, Shute changed the reaction of the blood serum from a state of anti-proteolysis to normal digestibility in from six to ten days by giving massive doses of the oil (3 dr. daily). However, he also employed other measures such as ice to the abdomen, rest and sedation.

When vitamin E therapy is employed in conjunction with the more accepted methods of treating threatened abortion, we may be able to improve our results appreciably; but I should hesitate to employ that form of therapy alone.

Another very important point in Dr. Owen's paper upon which too much emphasis cannot be placed is the matter of close observation and prolonged follow-up of patients who exhibit signs of hydatidiform mole or who are known to have had such a blighted gestation. Nothing less than a two-year follow-up is adequate. Hydatid mole is to be considered of great potential malignancy and its prompt removal should be effected with the utmost thoroughness. To this end, Curtis, Essen–Möller, Taylor and others have recommended that the uterine contents be evacuated by abdominal hysterotomy. This gives one a better opportunity to remove all mole elements under vision and to accurately inspect the uterine wall for evidences of syncytial invasion. This is a sound and relatively safe method of approach. It enables one to perform an immediate hysterectomy in the event that malignancy is apparent.

If the mole is to be removed by the vaginal route, the greatest care is necessary to avoid perforating the thin, friable uterine wall with the finger. Instruments should never be used. By this method one must depend upon the sense of touch to determine whether or not chorionepithelioma has begun its inroads upon the uterine wall.

As brought out in the speaker's paper, the finding of bilateral luteal cysts is a common finding and is noted in about 90 per cent of cases. The work of Aschheim and Zondek has pointed out that

hyperluteinization, hyperemia and superovulation are produced in the ovaries by the action of the anterior pituitary hormones. These cysts found in the ovaries are probably the result of the excessive amounts of anterior pituitary hormone in the blood and urine of women with hydatid mole and chorionepithelioma. Cysts of this type may attain a considerable size.

The value of repeated positive Friedman tests, obtained by the injection of exceedingly small amounts of urine, depends upon the abnormally great amount of anterior pituitary hormone which is so constantly present in these pregnancy complications. Anspach and J. Hoffman found that the urine of women with hydatid mole gave a reaction twelve times as strong as urine from a normal eight weeks' gestation. When chorionepithelioma is present the reaction is likely to be twenty to thirty times stronger. It appears, therefore, that early diagnosis of chorionepithelioma can be made by the proper and liberal use of the Friedman test.

Though some may differ as to the advisability of immediate operation solely on the strength of persistent positive Friedman reactions, Mathieu believes that the common good would be served by such treatment. Several instances of minute, early chorionepitheliomas found in extirpated uteri, removed on the strength of the Friedman test but with little or no clinical evidence of the tumor having been elicited, would seem to speak in justification of the procedure.

The persistence of anterior pituitary-like hormone in the urine and the history of a mole, even in the absence of the usual irregular uterine bleeding, should indicate but one diagnosis: chorionepithelioma.

Bleeding in Late Pregnancy*

By JOHN W. HARRIS, M. D.

Madison

BLEEDING in the last trimester of pregnancy is not of frequent occurrence, but, when it does happen, it is usually of such serious import that it demands the careful consideration of all practitioners of obstetrics. This is all the more true when it is remembered that this complication is always an emergency and most authorities agree that few obstetric complications are so frequently mismanaged.

Except in rare instances such as traumatic or spontaneous rupture of the uterus, bleeding in the last three months of pregnancy is due to one of two causes: placenta praevia or premature separation of the normally implanted placenta. The former has been designated as inevitable hemorrhage, since if the internal os is either partially or wholly covered by placental tissue, hemorrhage will surely occur when the lower uterine segment begins to form and the placenta thus becomes partly detached. The latter, in contrast, has been called accidental hemorrhage, other suggested terms for the same condition being abruptio placentae and ablatio placentae.

Etiology

The cause or causes of placenta praevia and premature separation of the normally implanted placenta are unknown. Time does not permit a discussion of the various theories proposed to explain the two conditions, but attention should be called to the frequency of association between premature separation and the late toxemias of pregnancy. Just what this relationship is we do not know, but it is generally stated that premature separation occurs about four times as frequently in toxemic patients as in those in whom toxic manifestations are absent.

Signs and Symptoms

The most characteristic sign of both of the complications under consideration is bleeding. As a rule it appears in the last three months of pregnancy or early in labor, although undoubtedly many miscarriages are due to the same causes in spite of the fact that the etiology is not so easily determined. Depending upon the amount of separation of the placenta, the initial blood loss may be slight or it may be great. However, it is unusual for the initial hemorrhage to reach amounts sufficient to jeopardize seriously the life of the patient.

---

* From the Department of Obstetrics and Gynecology, The University of Wisconsin.

Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

In placenta praevia the hemorrhage is external. The same is more frequently true of premature separation of the normally implanted placenta, but in a number of instances the bleeding is concealed due to the fact that the area of separation does not reach the placental margin and a retroplacental hematoma is formed, or else the blood escapes into the amniotic sac and its exit is prevented by the ball-like action of the fetal head.

In placenta praevia the bleeding is painless and tends to be intermittent. The uterus, upon palpation, preserves its normal size, shape and consistency. On the other hand, premature separation of the normally implanted placenta is accompanied by sudden, severe, and continuous pain. The uterus is sensitive to palpation and in many cases is hard, almost ligneous, in consistency. It is often noted that the uterus has become larger than before the accident and a bulge at the placental site may be noted.

Differential diagnosis can only be made by vaginal examination. In the case of placenta praevia the cervix is found to be unusually soft, and if the finger is carried up to the internal os the sponge-like placenta can be palpated. In premature separation of the normally implanted placenta the cervix is found of normal consistency and no placental tissue can be palpated at the internal os. However, as will be explained later, no vaginal examination should be made until active treatment is ready to be instituted.

Treatment

Few obstetric complications are so frequently mismanaged as is bleeding in late pregnancy. This can be attributed largely to a combination of failure to recognize early the seriousness of the condition, the use of vaginal examination before treatment is ready, unwise packing of the vagina, and attempts at rapid delivery through the birth canal either instrumentally or by the administration of pituitary extract.

It should always be remembered that bleeding in the last three months of pregnancy is invariably serious, and, under no circumstances, is to be disregarded. When first confronted with such an emergency the question of hospitalization of the patient must be settled. Due to the lack of adequate assistance and the difficulties in applying a number of necessary procedures such as blood transfusion in the home, such patients should always be hospitalized when adequate facilities are available. It is not impossible, but it is exceedingly difficult, to treat a case of hemorrhage in late pregnancy in the home. If the patient is to be transferred to the hospital, it should be done without delay and with as little disturbance as possible. The administration of morphia not only allays the patient's fears, but often causes the bleeding to decrease. Under no circumstances should a vaginal examination be done. To do so will only increase the hemorrhage, especially in the case of placenta praevia. Unless the bleeding is excessive, it is best not to pack the vagina, and any attempts to pack the cervix will result in more profuse hemorrhage. In those cases where the blood loss is already excessive the vagina may be packed, taking undue care to preserve the most rigid aseptic technic. Vaginal tamponade increases the risk of infection and is to be avoided whenever possible.

Immediate preparation for transfusion should be instituted. Bill, of Cleveland, and others have shown the undoubted value of transfusion in such cases. Even though the blood loss may not be as yet excessive, delivery will be accompanied by additional hemorrhage, and, therefore, no delay in transfusion should be permitted. The administration of morphia and of fluids both intravenously and subcutaneously are of great value in combating the accompanying shock.

Whether the patient is to be delivered in the home or the hospital, preparations for control of the hemorrhage and the induction of labor should be instituted without delay. All the necessary preparations having been completed, a vaginal examination should be made to differentiate between the two types of bleeding, as well as to determine the condition of the cervix.

If the bleeding is due to premature separation of the normally implanted placenta or to a low implantation of the placenta, the treatment will depend upon the amount of

blood loss. In mild cases simple rupture of the membranes and permitting the amniotic fluid to escape often are sufficient to control the hemorrhage by allowing the placenta to be compressed between the uterus and the body of the child. However, such patients should be observed with care remembering that at any moment the hemorrhage may become serious. If, on the other hand, the bleeding is excessive and continuous or especially if of the concealed type accompanied by intense and continuous pain and board-like consistency of the uterus, cesarean section of the low cervical type should be done without delay. In a certain number of instances at the time of operation the uterus will be found to be the seat of the so-called utero-placental apoplexy of Couvelaire. This is recognized by the bluish coppery color and striated appearance of the uterus and is due to a disassociation of the muscle fibers by blood. Many such uteri will fail to contract after the contents are removed in spite of all efforts to promote contraction. When this occurs the only recourse is radical removal of the organ if fatal hemorrhage is to be prevented.

If, upon vaginal examination the cause of the bleeding is found to be due to placenta praevia, the correct treatment will depend upon a number of factors: whether the patient is at home or in the hospital, the area of the internal os that is covered by placental tissue, the size and viability of the child, and the condition of the mother. Under no circumstances should attempts toward rapid dilatation of the cervix either manually or instrumentally be made. The placental tissue invades the muscularis of the lower uterine segment and cervix and makes it excessively soft and friable. Attempts at rapid dilatation of the cervix often result in deep tears of the structures with resulting uncontrollable and fatal hemorrhage. The procedure cannot be condemned too vigorously. Pituitary extract, likewise and largely for the same reasons, has no place in the treatment of placenta praevia until after the delivery of the child.

If it is necessary to deliver the patient in the home, probably the safest method is by means of bipolar version of Braxton Hicks. In this procedure two fingers are introduced through the cervix, the membranes ruptured, the child turned and one foot only brought through the cervix and out of the vagina. The buttocks act as an effective tampon compressing the separated placenta against the cervix and thus controlling the hemorrhage. No attempt is made to deliver the child until the cervix is fully dilated. There is no reason why the rubber balloon of the Vorhees type cannot be used in the home except that rarely is one available when needed. It can be introduced easily and, if necessary, without anesthesia, effectively controls the hemorrhage and results in more living children than does the bipolar version of Braxton Hicks.

There still remains a great diversity of opinion as to the correct treatment of placenta praevia in the hospitalized patient. The difference in general lies between the choice of the bag and cesarean section. Time does not permit adequate presentation of the arguments on both sides of the question. It seems to me that the decision largely rests upon the condition of both mother and child when first admitted to the hospital. Undoubtedly routine cesarean section in cases of placenta praevia results in more living children and, theoretically, this should also be true for the mothers. In actual practice this is often far from true. It must be remembered that cesarean section is a major operative procedure, attended by shock and blood loss and possessing a not insignificant mortality due to the operation itself. Many patients are admitted to the hospital profoundly anemic and in shock from loss of blood, already infected from careless vaginal examinations and packing. In most such cases the baby is already dead or else in such poor condition that there is little or no hope of delivering a living child. Such patients can rarely survive the additional shock of cesarean section. On the other hand, the Vorhees bag can be inserted quickly and with little added shock to the patient. When correctly inserted it controls the hemorrhage and provides a means of slowly and safely dilating the cervix. Most authorities now advocate the intraovular application of the bag. In other words, the membranes should

be ruptured, the head dislodged and the bag inserted past the area of separated placenta. One should make certain that the diameter of the bag is as great as that of the baby's head so that when the bag is expelled there is no impediment to the exit of the child. In case of placenta praevia in primiparae with little or no dilatation of the cervix and in cases of central placenta praevia, cesarean section seems to be the operation of choice if the condition of the patient permits. The low cervical type of section should be done rather than the classical. It permits a direct approach to the area of placental attachment and is much safer from the standpoint of infection.

Conclusion

In conclusion, it should be remembered that hemorrhage in the last three months of pregnancy is always serious and demands prompt and effective treatment. In cases of premature separation of the normally implanted placenta the treatment depends upon the amount of blood loss and the condition of the patient. It may require only rupture of the membranes in the mild cases, while if the hemorrhage is excessive or of the concealed type, especially when uteroplacental apoplexy is present, cesarean section of the low cervical or radical type should be done. When it is necessary to treat placenta praevia in the home, bipolar version of Braxton Hicks seems to give the best results. In the hospital, placenta praevia of the central variety and in primiparae with little or no dilatation of the cervix is best treated by low cervical section. In other cases, the choice between cesarean section and the Vorhees' bag should be determined by the condition of both mother and child.

DISCUSSION

Dr. Edwin F. Schneiders (Madison): Allow me first to compliment Dr. Harris on so complete a presentation of a major subject in the short period of time available to him. There is no logical basis for argument, or disagreement with the major premises he has set forth. Allow me, then, to augment and reemphasize various phases of the subject. Dr. Harris mentioned the serious importance and the frequent mismanagement as well as the relative infrequency of the conditions under consideration.

Even though reports of some individual specialists or hospitals cite an incidence of placenta praevia of 1.5 per cent to 2 per cent and premature separation of placenta in like degree in their practice, there is statistical evidence that in general practice, both placenta praevia and premature separation of the placenta, of moderate or severe degree, occur about once in five hundred or more pregnancies, reaching the last trimester. Most physicians see relatively few cases during an active, general practice. This undoubtedly is responsible for a certain lack of preparedness on the part of many physicians when suddenly confronted with one of these cases. Sympathy must be extended to the physician who encounters such a problem many miles away from adequate hospital facilities, particularly as occasionally this occurs in the dead of a winter's night, with roads to all intents and purposes frequently impassable. That such is not a figment of the imagination is amply substantiated by the fact that the above conditions have frequently been described by physicians when, upon appearing before their medical society, the question would be put to me, "What would you do in such a case?"

For the sake of brevity, let us consider that we are confronted in the home with one of the more severe cases of bleeding in late pregnancy with blood loss, and/or attendant symptoms sufficiently severe to demand immediate intervention. The occurrence of sudden uterine bleeding associated with sudden severe abdominal pain and a sensitive, hard uterus is almost pathognomonic of placental separation. Evidences of anxiety, apprehension and shock are frequently out of all proportion to the amount of visible blood loss.

The use of a few lantern slides at this time will aid us to visualize the phenomena occurring in the uterus as well as to indicate the logic of proper therapy.

Because of the magnitude of placental separation in many cases or with interference with the fetal circulation in the hard, spastic, non-relaxing uterus frequently present even with lesser degrees of separation, there is usually a history of sudden overactivity of the fetus soon followed by cessation of movements. The entire condition may aptly be likened to an abortion, occurring here, however, at or near term, and demands emptying of the uterus as rapidly as consistent with safety.

The membranes should be ruptured under aseptic precautions and a firm compression binder applied around the abdomen. If labor does not set in promptly, I, personally, would not hesitate to administer minim doses of pituitary extract at intervals of twenty to thirty minutes until labor begins.

This is one of the few instances in which pituitrin, even in fractional doses, can logically be used before the end of the second stage, but can be justified on the basis that delay may mean severe blood loss and/or uterine muscle infiltration with its resultant tragic consequences. Labor may or may not be terminated by forceps upon completion of cervical

dilatation, depending on the merits of the case. Delay in complete separation and expulsion of the placenta may require manual removal.

The use of recently isolated alkaloids of ergot may be of great value at this time. Under the trade name of ergoklonin there are available preparations for use by mouth or rectum as well as ampules for intramuscular injection. Even more dramatic response can be obtained, when indicated, by the intravenous use of erogotrate which elicits almost instantaneous response.

The above-mentioned preparations are of far greater value than most of the older ergot preparations, and, if used in conjunction with pituitrin, are far superior to pituitrin alone in this type of case.

In spite of the above measures, uterine packing may occasionally have to be resorted to.

The salient points in the differential diagnosis have been mentioned both as to symptoms as well as the presence of a soft patulous cervix in placenta praevia through which can be felt the boggy mass of placental tissue in central praevia or the placental edge in the partial or lateral type, in which palpation of roughened membrane, due to remnants of chorion and particles of decidua, aid in establishing a diagnosis.

It is usually stated and quite generally accepted that if the patient requires delivery in the home, in a case of central placenta praevia, that the Braxton–Hicks maneuver is the procedure of choice. Such is sound advice, although I am certain in my own mind that if I undertook the responsibility of home deliveries in a community removed from immediate hospital facilities, that I would have in my equipment several large-sized Vorhees' bags and accessory materials. Perforation of the already separated central portion of the placenta with sharp-pointed scissors and the introduction of the bag I believe would be easier in the hands of the average physician and attended with better results both as to mother and infant than the Braxton–Hicks maneuver.

Let me emphasize at this point one of the statements in the report concerning the study of 7,537 obstetrical deaths in 15 states by the Children's Bureau of the Department of Labor. Four hundred and eight of these deaths were due to placenta praevia, 61 of which were complicated by sepsis. "There seemed to be considerable misunderstanding on the part of doctors regarding the dangers of version and extraction with immediate delivery and the Braxton–Hicks maneuver with delayed extraction. As a matter of fact, the latter was rarely done. Rupture of the uterus, tears, hemorrhage and shock were frequent. So large a number died immediately after delivery that relatively few lived long enough to die of sepsis. That the buttocks of the child could be used to control hemorrhage and that shock could be treated at this time, was practically never considered." I quote the above in order to emphasize the fact that the statements of Dr. Harris concerning accouchement forcé, rapid extraction or pituitary extract cannot be too strongly emphasized, and the advice heeded.

We must admit, however, that in the vast majority of cases, particularly in placenta praevia, the above-cited emergencies need not arise in the home even in rural communities. In substantiation let me quote from "Maternal Mortality in New York City," a survey in which a group of physicians has carefully outlined the factors involved: "It is evident that the prenatal course of these women was improperly supervised either through their own ignorance in disregarding what seemed to be trivial bleeding, or through the failure of the attendant to evaluate the symptoms and institute proper treatment. The frequency with which the patient was neglected even after a really significant hemorrhage which pointed most emphatically to the existence of placenta praevia, is an indication that the gravity of the situation was only poorly grasped by the attendants. It is vital that the attendant inform the patient categorically that bleeding during pregnancy is never trivial and may be and often is the warning of disaster. Furthermore, the treatment in these cases was frequently improper. The choice of operation as well as the time of its performance must be judicious. Rapid traumatizing delivery by the birth canal must be avoided as it increases the hazard to the mother."

Let us now consider our attempts at the development of an ideal method of handling cases of bleeding in late pregnancy. Patients who are bleeding or have a history of bleeding are sent to the hospital immediately. No examinations, vaginally or rectally, are done. We stress to referring physicians that the vast majority of these patients when first seen by them do not require pelvic examination nor vaginal tamponade, which, as usually done in the home, accomplishes little good and may do great harm. If, because of profuse hemorrhage, tamponade is decided upon, certainly the patient should be surgically prepared and sterile gauze soaked in aqueous mercurochrome, metaphen or merthiolate or similar preparations, be used. Morphine should be given early and in adequate dosage. Prospective donors should accompany the patient to the hospital. Typing and cross matching for transfusions is done immediately and with operating room and force in readiness, and with sterilized bags and adjunct equipment at hand, the patient is prepared for sterile vaginal examination. Proper evaluation of the patient's condition may require transfusion even this early, either just before, during, or after the examination, diagnosis and indicated treatment. We attempt to reach a logical decision based on (a) condition of patient as regards shock, blood loss, etc., (b) condition of the cervix, (c) type of placenta praevia, (d) period of gestation and condition of the infant, (e) number of vaginal examinations, membranes intact or ruptured, (f) is patient in labor or not and if so with what result. If the condition of the patients permits, we also like to obtain an x-ray of the fetus because of the rather frequent associa-

tion of monstrosities with hemorrhage in late pregnancy, the presence of which might influence the choice of procedure.

In case the patient is suffering from separation of placenta, we must attempt to evaluate the degree of damage to the uterine musculature. Also, some of these patients will be found to be toxic and the degree of toxemia is an influencing factor in the decision made. The above-described individualization of patients has been attended with extremely gratifying results. May I stress briefly the use of transfusion. In addition to intravenous and subcutaneous fluids, heat, morphine, etc., we use blood frequently and in large amounts. It seems illogical to give a patient only 500 cc. of blood, when, in reality, she may have lost 2,000 cc. or more. Acute anemia means atonia. We believe in and frequently use massive transfusions, using several donors and giving 1,000 cc. or even more at one time. In several instances, up to 2,000 cc. has been given in 24 hours with great benefit. We advise cross matching of donor to donor as well as to ricipient, if several donors are used at one time. Donors should have either Kahn or Kline test if time is not available for Wassermann determination. If possible, we use donors who have not partaken of food for a numbers of hours. Patients under anaesthesia, or recovering therefrom, practically never have transfusion reactions and observance of the above points will lessen greatly the incidence of reactions.

It has been our good fortune not to have found it necessary to perform hysterectomy because of uncontrollable bleeding subsequent to delivery. If confronted with a case of uteroplacental apoplexy with dead fetus and severely infiltrated uterus and with the patient in poor condition, I would strongly consider the removal of the unopened uterus as the primary step, because, in such a uterus, cesarean would be accompanied with considerable blood loss—sufficient in many instances to kill the patient while the uterus was being sutured and stimulated.

Dr. Harris stressed the choice of low cervical section over classical to which we heartily subscribe. I feel it wise also to pack the uterus at the time of section, if there is evidence of atonia or persistent bleeding. The end of the gauze pack can readily be pushed through the cervix from above and the pack removed later as indicated by the patient's condition.

Amebiasis*

By JOSEPH L. MILLER, M. D.
Chicago

AMEBIASIS is the invasion of the tissue of man by the Endamoeba histolytica. The recent extensive epidemic of amebiasis in Chicago, the first of its kind ever reported, has introduced a new health problem. From July 1, 1933, when the epidemic was first recognized, until July 1, 1934, 1,400 acute cases of this disease were reported, in addition to almost innumerable carriers who had never suffered from dysentery. About 50 per cent of those affected with acute dysentery resided outside of Chicago, but visited the city during the time the World's Fair was in progress and all probably visited the Century of Progress. Of the total number of acute cases 58 per cent had taken at least one meal at a certain hotel. In this discussion, I shall merely make suggestions as to the cause of this epidemic. Since the appearance of this epidemic, the U. S. Public Health Service has been working on this problem. A report from this source will soon be available, and this is awaited with great interest.

Attention might be called to a moderate epidemic of this disease in Chicago in the summer of 1926. Attention was first drawn to this epidemic by the late Dr. Charles Spencer Williamson. He observed that a number of these patients resided at a certain hotel—not the one thought to be involved in the recent epidemic. A study was made of the food handlers at this hostelry, and between 3 and 4 per cent were found to be ameba carriers. No special attempt was made to study the source of this infection. During this period I saw eight acute cases. Until then it had been the opinion of physicians in Chicago, based largely on experience, that amebic dysentery seen in the city had always been acquired in the southern states or in the tropics. None of the patients I saw had been farther south than St. Louis.

In the beginning of the recent epidemic attention was at once directed to a particular hotel. It was first thought, contrary to

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

experience, that the disease was disseminated by food handlers. A group of competent parasitologists—two from outside the city—began a study of the problem. About 16 per cent of the food handlers in this hotel were carriers, but it was later determined that food handlers elsewhere were infected to the same degree. A later study of 489 food handlers, chiefly waiters, by Dr. Bertha Kaplan Spector and Dr. A. V. Hardy (expert parasitologists) showed that 18.4 per cent were carriers.

Attention was then directed to the plumbing of this hotel, and, while certain defects were found, plumbing of similar character was used in hotels built at this time and in which the disease was not epidemic. Furthermore, there was no evidence that this hotel had acted previously as a source of infection.

The committee appointed by the Department of Health to investigate the epidemic considered whether or not two unusual rainfalls on June 29 and on July 2, 1933, might have been responsible. The total rainfall at these two periods was 5.4 inches. One of these floods broke two sewers in the basement, flooding the ice storage plant, and leaving a deep deposit of mud in the basement of the hotel where later the disease became epidemic. In accepting this view, we must assume that the sewerage contained large numbers of ameba histolytica cysts. These, in turn, could be accounted for only by the presence in the city of a very large number of carriers. That the sewerage contained a large number of cysts is further confirmed by the appearance in December, 1933, of 7 cases of acute amebic dysentery in an industrial plant employing 375 workers, and where a cross connection permitted direct contamination of the drinking water from the river water. A further examination of all the workers in this group revealed 71 carriers.

Prevalence in Chicago

In December, 1933, Dr. Bertha Kaplan Spector, parasitologist at The University of Chicago Medical School, and to whom I am indebted for much data, began examining the stools of patients in the out-clinic at the Billings Hospital. She selected only those patients who were free from intestinal complaints. She has continued this study up to the present time and has examined the stools of at least 4,000 patients. It is necessary to bear in mind that these results were obtained from examining a single stool. As active ameba are not usually found in formed stools, the examination was made chiefly for cysts. In the figures given here, over 90 per cent of positive cases had only the small-cyst type. There is evidence to show that the small cysts produce a milder type of disease. In December, 1933, Dr. Spector examined 24 stools—20.8 per cent were positive. In January, 1934, 55 stools—35.8 per cent were positive. In February, 1934, 104 stools—38.4 per cent positive. March, 1934, 169 stools—28.9 per cent positive. April, 1934, 100 stools—40 per cent positive. May, 1934, 124 stools—42.7 per cent positive. June, 1934, 187 stools—35.4 per cent positive. Further studies of this character will be presented later. These figures show that chronic amebic dysentery without symptoms was very prevalent in the city.

Every carrier has a lesion in the bowel, but not extensive enough to produce symptoms. The presence of cysts means the presence of active amebae as forerunners of the cysts. The active forms cannot live in the bowel lumen as they feed on live tissue juices. How did this group of patients become infected? Certainly not from eating at this particular hotel, as dispensary patients usually take their meals at home or in some reasonably priced restaurant. I believe one is forced to conclude that there was extensive contamination of the city water supply from sewerage.

Approximately 100 patients of this entire group with acute dysentery were operated upon—the proper diagnosis not having been made. Fifty per cent of these died.

In May, 1934, a very serious fire occurred at the Union Stock Yards of Chicago. The water for stock there is supplied by a small artificial lake. This water is supplied in part by a deep well and in part by a small stream (after filtration) which is really sewerage. The day of the fire the pump supply-

ing this lake was out of order. As the firemen found the city water supply inadequate, water was taken from the small lake. The increased demand prevented proper filtration. Some of the firemen and many of the onlookers drank from the pipe supplying the cattle troughs. Within 24 hours a large number of visitors and firemen developed acute gastro-enteritis with vomiting and diarrhea. This subsided within 48 hours and was due probably to intestinal bacteria in the water. Later, 68 of these patients developed typhoid fever. Within a week, 140 firemen complained of abdominal cramps and dysentery. In addition, 49 firemen reported mild symptoms of this same character. In the severe cases 62 per cent were positive for E. Histolytica; in the moderate cases 43 or 51 per cent; in the very mild type 39 per cent. Out of a total of 305 firemen with engines within the Stock Yards, 48.2 per cent were positive. Examination of the stools of 167 firemen whose apparatus was adjacent to the yards and where only the city water supply was used showed 18.5 per cent to be positive.

This epidemic, which developed very close to the termination of the city epidemic, indicated that in spite of high contamination of sewerage the acute disease had subsided in the city and strongly suggested an improvement in the city's water supply.

Dr. Spector, Dr. Hardy, and their associates at a later period studied the stools of other groups of people. Of 149 new applicants for CCC camps 27.9 per cent were found to be positive. A group of 130 people from families in which one member had had amebic dysentery showed 42.3 per cent to be carriers. Another group of 54 families, with a total of 205 members, where there was no history of previous intestinal disturbance, showed 28 per cent to be positive. In another group of 42 families, 134 members, without history of intestinal trouble 42.5 per cent were found to be positive. Over 90 per cent of these had only the small-cyst type. This indicates that the presence of one case of dysentery in a family is not responsible for the carriers; that is, that the disease is not usually disseminated by contact. It is not to be inferred from this that the disease cannot be spread through contamination of hands. In this respect, it is of interest to report that a relatively large percentage of laboratory workers who examined a large number of infected stools developed acute dysentery. The two physicians brought to the city to aid in solving the problems, both of whom were parasitologists, and who examined many infected stools, developed acute amebic dysentery. One of the physicians who had worked for years in the tropics developed as a complication a liver abscess. It is possible that contamination of the hands was responsible for their infection.

Returning again to Dr. Spector's studies at the Billings Hospital begun in December, 1933, in the midst of the epidemic, and continued to date—reference has already been made to her studies of July, 1934, at which time the epidemic had subsided. From July, 1934, until January 1, 1935, the monthly incidence of carriers varied from 29.5 per cent to 10 per cent, the lowest incidence being in September. In December, 1934, the incidence was 20 per cent. In 1935 from January to July the incidence was never lower than 35.4 per cent and it reached 42.4 per cent in May. During the remainder of 1935 there was a marked fall in incidence reaching 5.2 per cent in December. During the first three months of 1936, the incidence of carriers has varied from 2.4 per cent to 5 per cent. One might infer from these studies that carriers recover spontaneously and that the source of infection had been removed.

In October, 1935, a corporation re-opened a foundry located on the south branch of the Chicago River that had been closed during the depression. The plant was rejuvenated, and 298 men began working on October 4, the day the plant was opened. The night of October 4, 70 of these men developed marked gastro-intestinal disturbance. All had diarrhea and some vomiting. Another smaller group developed diarrhea 24 to 36 hours later. The diarrhea, occasionally with cramps, continued from 2 to 8 days. Then, with the exception of one case, the diarrhea ceased. Seven of these patients continued

to have some discomfort over the abdomen, with cramps and a mushy bowel movement, especially immediately after breakfast. There was no further bowel movement until the following morning after breakfast. Two of these patients complained of soreness over the abdomen and cramps without looseness of the bowels. In all of this group, active E. histolyticae were found; in one only after 19 stools had been examined. The incubation period in at least one of these patients was eight days. The patients were given 1 gr. of emetine daily by hypodermic for ten days and at the same time 4 gr. of vioform three times a day. All were free from parasites or cysts at the end of this treatment. However, a week later they were given another course of vioform, and have been free from acute symptoms since.

One stool of each of the remaining 291 men was examined by Dr. Spector, and of these 21 per cent were positive. These patients were given 4 gr. of vioform 4 times daily for 8 days. A single stool failed to reveal cysts in 80 per cent of this group. All but one were free after a second course of treatment, and it was discovered later that this one person had not taken his medicine. The examination of a single stool is not sufficient to prove that the patient is free from parasites. It is Dr. Spector's opinion that at least 3 stools should be shown to be negative before satisfactory conclusions can be drawn.

It was shown that the cause of this epidemic was the fact that the valve of the pipe from the river (which supplied water to the boiler) and the valve of the pipe conveying city water (which the men were supposed to drink) were both open. As the pressure in the pipe from the river was higher, this water was forced into the pipe which supplied the city water. It is interesting to note that no case of typhoid fever developed as a result of this contamination.

After the water condition had been corrected 129 new men were employed. Their stools were examined and 9.3 per cent were found to be positive which is probably about the average percentage of carriers in the people of Chicago.

The United States Public Health Service has had workers in the field endeavoring to determine the cause of the Chicago epidemic. In a forthcoming report which is being prepared from carefully selected data, they will probably be able to clear up the cause of the Chicago epidemic.

Incidence of Carriers

Mention might be made of surveys made in various parts of the United States to determine the incidence of carriers.

One is the paper by R. W. Nauss and M. H. Salinger entitled "Amebic and Other Intestinal Protozoal Infections in New York City"—*Am. J. Pub. Health*, 1935, 25, 819. These investigators examined 800 patients, two thirds of whom came from the gastrointestinal service of the Cornell Pay Clinic. In most cases material was obtained from the rectum through a proctoscope. Only a single specimen was examined. None of these patients gave a history of diarrhea. In this group were 222 food handlers. In the entire group 5.4 per cent were positive for E. histolytica.

Craig in his book on amebiasis has discussed in detail the incidence of this disease in various parts of the world. In most instances conclusions are based on a single stool examination. It is believed by parasitologists generally that a single examination is inadequate and that at least three stools should be examined. Much, of course, depends on the knowledge and experience of the examiners.

It is almost futile to examine a formed stool for the active forms, and a watery stool only rarely contains cysts. In the examination for cysts it is unnecessary to have a warm stool. Cultures, when done carefully, are an aid. Dr. Spector informed me that not more than 8 per cent of small cysts can be cultured. It is well established that from the standpoint of cysts of E. histolytica two types exist—large and small cysts and both are pathogenic.

Craig refers to 18 surveys, covering 49,336 persons, made in various parts of the United States. In these surveys 11.6 per cent of those examined were found to be

positive. It may be stated conservatively that at least 5 per cent of the population of the United States are infected with this parasite.

There has been considerable discussion as to whether the absence of symptoms is due to impaired virulence of the parasite or to the increased resistance of the host. It has been shown that cysts from a symptomless carrier when introduced into the rectum of a kitten caused dysentery.

There is also some difference of opinion regarding the presence in all carriers of intestinal lesion. The motile form of the ameba from which cysts are developed live on fresh tissue juice and cannot obtain their nourishment from the bowel contents. Cysts are rarely found in the amebic abscesses of the liver. Infection occurs only through ingestion of the cystic form. The cysts pass through the stomach untouched. The capsule is digested off by the small intestinal juices and the motile forms set free. Lesions in the bowel of carriers dying from other causes may easily be overlooked. See P. Manson–Bahr's "Differential Diagnosis of Diseases of the Colon."

In the *Lancet,* 1936, 1, 759, one will find the report of a careful histological study of the manner of invasion of the cecal mucosa. The first step in invasion is penetration of the amebae into the glands of Lieberkühn. With their proteolytic ferment the epithelial cells of the gland are destroyed and the amebae invade the submucosa of the gut. This results in a submucus abscess which usually opens into the lumen. This opening may be very small and can easily be overlooked. This method of invasion accounts for the undermined character of the ulcer. It is through this submucosal lesion that the parasite enters the portal vein. The blood, pus, and amebae are forced into the lumen by the peristaltic contraction of the bowel.

The active forms are easily destroyed, but the cysts are quite resistant. Dr. Spector has shown that on lettuce kept in a refrigerator, they were still viable at the end of six months. They are easily killed by drying. Dr. Spector found that when infected material was smeared in a very thin layer on the hands, the cysts were inviable in 5 to 7 minutes; when placed under the fingernails, their viability did not exceed 10 minutes. These tests suggest that rarely are food handlers responsible for the dissemination of the disease.

The cysts after 48 hours in the intestinal tract of a fly are still viable, and the fly may act as a carrier of cysts to food. In the epidemic among the American troops at El Paso, Texas, in 1915, Craig believed the fly may have acted as a desseminator of the disease.

Low-growing vegetables, such as lettuce, celery, and cabbage, may act as carriers of the disease if sprinkled with contaminated water and especially if fertilized with human excreta — a not uncommon practice by orientals.

Cysts in polluted water survive for only a short period—10 days. If the cysts are washed and placed in sterile water and kept at a temperature of 53 to 71 degrees, they are still viable after several months. Bichloride 1-1,000 destroys cysts in 30 minutes. Chlorine in a dilution of 10,000 has no effect on the cysts, and such water would not be palatable. The cysts tolerate cold very well and can probably retain viability on ice.

Treatment

Craig calls attention to the effect of climate on acute dysentery. Removal from a hot to a cool climate may be followed by marked clinical improvement. He suggests that this may be due to increasing the resistance of the individual.

There are three groups of drugs of especial value in treating this disease—emetine, arsenic, and a complex iodine compound first introduced in 1925 under the trade name of "Yatren." The preparations of this iodine compound now used are chiniofon and vioform, these two preparations varying chiefly in their iodine content. None of these agents has any effect on cysts.

Ipecac is the oldest remedy. It was used first by the natives of Brazil and introduced into Europe in 1658. While the alkaloids of ipecac were discovered a century ago, it was not until 1912 that it was shown that emetine

was of value in this disease. It is used subcutaneously or intramuscularly. The safe dose for an adult is 1 grain daily for ten days. It rarely causes nausea. It is the remedy of choice in acute dysentery, and apparently the only one of the group of value in treating amebic abscess of the liver. Its value as a curative agent in dysentery does not rank as high as either of the other two agents mentioned. Furthermore, it is toxic and cumulative and should never be given intravenously.

The arsenical which is most in favor at present is carbarsone. This contains 29 per cent of arsenic, but apparently its toxicity is low. The recommended dose is 4 gr. twice a day for 10 days, and this course of treatment may be repeated after a lapse of 10 days. When given in this manner, it may be repeated until adequate examination of stools fails to show the presence of cysts.

As stated, chiniofon and vioform differ chiefly in their iodine content: the former contains 28 per cent of iodine and the latter approximately 38 per cent. My experience has been limited to vioform. These are both given in capsules of 4 gr. each, three times a day for ten days. After a pause of 10 days the course of treatment is repeated.

While any of these preparations may be used in the acute as well as the chronic form of the disease, we have usually used emetin in the acute stage and followed it with vioform. In our experience 100 per cent of carriers were free from cysts after two courses of treatment with vioform.

Amebic abscess of the liver was formerly treated surgically. This method of treatment has practically been replaced by the use of emetin. An English physician, Leonard Rogers, with a long experience in India, is a strong advocate of the use of emetine in liver abscess and reports that in 2,261 cases where drainage was used the mortality was 56.7 per cent.

I have been amazed at the striking effect of emetine in liver abscess. In one instance a patient with an unrecognized liver abscess which later ruptured into the abdominal cavity had been operated on by making an incision in the abdominal wall and introducing a drainage tube. This tube had been in place several months when I saw the patient. She had fever, with occasional chills and profuse sweats; was greatly emaciated and confined to bed. After the sixth dose of emetine, the patient rode 10 miles to the physician's office for further treatment. After two courses of treatment the patient was symptomatically well.

Insulin Shock Therapy of Schizophrenia (Dementia Praecox)

By HANS H. REESE, M. D.

Wisconsin Psychiatric Institute, Madison

A BRIEF review and description of the insulin therapy shall acquaint the profession of Wisconsin with its problems. The widespread publicity in the lay press will bring to the family physician such questions as: What is the procedure really? What are the dangers? What are the results? and, What cases of mental disorders can be benefited? Before patients are submitted to insulin shock therapy, we contact the relatives, and, by giving them general information, expect that they seek counsel from their family physician before they give permission to start treatment. Furthermore, I hope that this article will stimulate therapy in early cases which in the past were kept home, because rightfully the house physician had to advise the family that nothing could be done anyway. The fatalistic attitude kept the patient in his environment until deterioration, hallucination, and queer behavior made commitment to an institution necessary, terminating thus social life for the schizophrenic.

Experiences with insulin-treated morphine addicts and subsequently theoretical considerations must be ommitted. They suggested

(Continued on page 134)

THE WISCONSIN MEDICAL JOURNAL

The Editorial Board

GEORGE H. EWELL, Madison F. GREGORY CONNELL, Oshkosh S. J. SEEGER, Milwaukee

Editorial Staff

JOHN HUSTON, Milwaukee, Medical Editor MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

A. W. ROGERS_____Oconomowoc
FRANK W. POPE_____Racine
JOSEPH DEAN_____Madison
W. CUNNINGHAM_____Platteville
A. H. HEIDNER_____West Bend
S. E. GAVIN_____Fond du Lac
H. A. JEGI_____Galesville
G. R. DUER_____Marinette
J. W. LAMBERT_____Antigo
JOSEPH F. SMITH_____Wausau
F. E. BUTLER_____Menomonie
F. G. JOHNSON_____Iron River
JOS. LETTENBERGER_Milwaukee

Annual Subscription_____Three Dollars-Fifty Cents Single Copies_____Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI FEBRUARY, 1937 Number 2

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

"Publicity"

HUNGER is probably the primary motivating factor in the behavior of man, as it is in animal.

In this "era of plenty" in the U. S. A., *hunger* for food is not as potent a force as it has been at times in the past and in other countries. But in this era of: "Printer's Ink, the Written and Spoken Word," and "Pictures," the hunger for so-called *publicity* seems to have proportionately increased. Publicity of one's self by newspaper or radio interviews, augmented by still and moving pictures, may be likened to a conditioned reflex that, once started, calls for more and more stimulation until it often occupies the major portion of one's available energies, that might possibly be directed to a more generally useful purpose.

Members of the press, at times in their haste and enthusiasm to outdo or "beat" one another in a "scoop", act as if they were a superior class and above the law. The "freedom of the press" has led often to the taking of undue liberties, with this or that, in an endeavor to arouse mass hysteria, with many times the objective being increased sales of the publication.

The following quotation from the first page of a daily paper of recent date indicates the extremes to which publicity seekers may go: *"During the day, as photographers swarmed about the baby's crib in a hospital room, the child grew weaker. By the time the baby was taken into the operating room, attended by doctors, nurses and photographers ——."*

In this instance, at least, the responsibility must rest primarily upon the chief actors in the stunt. The cooperation of the parents may possibly be due to a lack of appreciation of their right, or perhaps, a desire for unusual attention and sympathy in their misfortune.

But the evident assistance by the hospital authorities in staging this exhibit to morbid curiosity and sensation seekers, is a strange quirk in the idea of the object, purposes and uses of hospitals, that may react far from favorably upon such institutions in general.

The part played by the physicians and surgeons in this pathetic performance (probably that of catspaw for the news services) is to say the least, in "poor taste" and undignified (not to mention the more or less intangible matter of "ethics" which because

of misunderstanding often causes resentment by the laity).

Carrying out of a surgical operation—often a matter of life and death—with hullabaloo and ballyhoo similar to that of a carnival side show, to put it mildly, will tend to promote distrust in hospitals and in the medical profession.

The American Bar Association is even now considering ways and means of combating a similar tendency in court proceedings, which has been called "Hippodroming."

It is to be hoped that such displays can be properly curbed before they become, by familiarity, accepted as a regular practice.

F. G. C.

An Important Procedure

INASMUCH as I have just been looking at a case of rather severe scarring and distortion, as a result of a poorly done tonsillectomy, I think it is rather fitting at this time to bring the subject of the aftermath of tonsillectomy to the attention of the medical profession. It has been our experience, as I presume it has with a good many other men, in the nose, throat and ear work, to find a steadily increasing number of cases of this type coming to light. The only explanation can be that a great many operations of this type are now being attempted by men of limited training in this line of work, many of them with no more training than the few cases given them while interning, and others with decidedly less training. One finds as an illustration the complete removal of a right tonsil including the pillars of the fauces, and part of the soft palate, while the other tonsil is almost intact with just a little corner removed. The result is frequent subsequent attacks of tonsillitis, plus a cosmetic result of a very unpleasant type. Together with this situation, if any attempt has been made to remove the adenoids, it cannot be recognized.

All degrees of these imperfect results are met with, more and more frequently, even to the extent of an incomplete atresia of the soft palate with the pharangeal wall. It needs no comment to direct attention to what these unpleasant results mean to the later life of the patient.

Another situation that one meets, with increasing frequency, is that of a child brought in with the complaint of nasal obstruction. Examination of the throat would show a fairly well-done tonsillectomy, whereas a view of the nasopharynx would show a large mass of adenoids that should have been removed at the time of the tonsil operation. Such a case was seen by me about a week ago, in which, when I told the mother that the tonsils had been removed, but that the adenoids would have to be removed, she stated that they both had been done about a month before. She reluctantly submitted the child to another operation, which removed a mass of adenoids as large as a good-sized hickory nut. I did not ask the name of the doctor who had handled the child, but she assured me that he was a general practitioner, and she thought he did not do much of that type of work. Now it seems manifestly unfair to the patient to have to submit to two procedures within a month, when, in the hands of a properly trained man, one would have been sufficient, and it would seem reasonable to require that those men who desire to do this class of work should fit themselves to carry it out properly, and to acquire the proper surgical technic to be able to meet the emergencies that occasionally arise.

Properly done a tonsillectomy as a rule is not a difficult matter, if one has learned to start his capsular separation correctly, to control hemorrhage and to avoid unnecessary traumatism. It cannot be done properly without a well-illuminated field. The removal of adenoids is less easy in one respect, because one is entirely guided by the sense of touch, but if one develops a trained touch and with proper instruments and proper position, the removal of adenoids is a simple matter. Incomplete removal of adenoids is often disastrous later to the proper ventilation of the middle ear, and the development of the upper jaw, and may also cause severe interference with nasal respiration, and as a consequence the impairment of general good health. It would seem to me that the medical profession as a whole should take cognizance of these facts. H. B. H.

.... THE PRESIDENT'S PAGE ....

Vital to Our Welfare

IN THE issue of the Wisconsin Medical Journal of November, 1934, Dr. O'Leary in his president's page made an appeal through the officers of the county societies for a special effort to bring into the State Medical Society, all eligible nonmembers. This met with a splendid response, and at this time, we are again writing the presidents of all county societies for another effort in this respect, and hope that we will obtain as good a response as did Dr. O'Leary.

There is another serious membership problem which even transcends that of nonmembership. In reading over the list of members of the State Society, it is quite surprising to find such a large number of splendid, able, influential members who evidently are not interested and take no part in the affairs of the Society. They pay their dues, many of them very promptly, but, aside from that gesture, do not participate in any phase of the Society's activities, scientific or economic; oftentimes not even to the extent of attending the meetings of their county medical societies. This group of men may be divided into two types. One type is made up of those who are content to sit on the side lines accepting all of the benefits and advantages derived from the efforts of the many willing workers in the organization, and are often the first to decry or criticize these same workers. The other portion of this inactive group is largely composed of those who spend so much time, thought, and energy in the affairs of special scientific societies, other than the state and county societies, that their time and interest are so taken up that they have no opportunity or inclination to participate in the activities of their county and state societies.

These men are badly needed in organized medicine. In these times, when so much united effort is necessary, it will be extremely difficult for the profession to go along in its proper stride, unless this unfortunate situation is corrected. In this connection I would like to quote a paragraph of an article written by the editor of the West Virginia Medical Journal:

"The medical profession cannot stand together as a solid front so long as its individual members squander their allegiance in hybrid medical organizations.

"There is a recognized place in our modern medical scheme for many of the specialized organizations that are now in existence. Many of them unquestionably play a part in the advancement of medical science. But they should be considered only as hors d'oeuvres on the dinner table of organized medicine. Choosing between the two honors, this writer would rather be a member of his county medical society than president of all the off-shoot medical organizations in America, Haiti, and Guam."

I believe, this year, that in addition to a decided effort to bring into the Society all eligible nonmembers, we should make a particularly strong attempt to convince this rather large group of members that their influence, experience, and action are necessary to the organization, and vital to the welfare of the profession.

S. E. Gavin

Society Proceedings

Clark

The members of the Clark County Medical Society were entertained by Mr. Duncan, superintendent of the Clark County Asylum on December 17. Dr. M. C. Rosekrans, Dr. B. H. Dike, and Dr. A. H. Kulig were appointed to the Cancer Committee; and Dr. R. H. Wink and Dr. F. P. Neis to the Program Committee.

The program included a talk entitled "The County Asylum a Hospital in Fact" by Dr. H. H. Christofferson, of Colby, and an illustrated talk on "Diagnostic Problems in Renal Calculus" by Dr. W. G. Sexton, of Marshfield. Miss Gertrude Clause, county nurse, reported on the progress of the tuberculosis program.

The meeting was preceded by a dinner at which the medical men of the county and several visiting physicians were guests.

Juneau

The Juneau County Medical Society had a dinner meeting at the Park Hotel, New Lisbon, on January 8. Dr. A. A. Pleyte, of Milwaukee, who was the principal speaker, had as his subject "Tuberculosis in Wisconsin and Particularly in Juneau County."

Milwaukee

The Medical Society of Milwaukee County held a joint meeting on January 8 with the Milwaukee Roentgen Ray Society at the Milwaukee Athletic Club.

The program included demonstration of the Mantoux test and the following scientific papers: (1) "The Suicide Problem" by Dr. Merle Q. Howard, Milwaukee Sanitarium, Wauwatosa; (2) "Indications for and Practical Application of X-Ray Therapy" by Dr. Ernest A. Pohle, professor of radiology, University of Wisconsin Medical School, Madison.

Outagamie and Waupaca

The Outagamie and Waupaca County Medical Societies held a joint meeting at the Elwood Hotel, New London, on January 14. Dr. Herman H. Heise, Milwaukee, gave a talk on allergy and the general practitioner.

Shawano

Dr. L. W. Peterson was re-elected president of the Shawano County Medical Society at their dinner meeting at the Murdock Hotel on January 13. Dr. E. E. Evenson, of Wittenberg, is vice president; and Dr. Arthur Cantwell was re-elected secretary-treasurer. Doctor Evenson was also appointed chairman of the Cancer Committee.

Vernon

The Vernon County Medical Society held its last meeting in conjunction with the Kiwanis Club at Viroqua. Dr. James C. Sargent, president-elect of the State Medical Society of Wisconsin, spoke on "Shall Medicine be Socialized?" and later presented a paper on "The Careful Diagnosis and Conservative Managment of Urinary Tract Stones." This was illustrated by lantern slides. Dr. Alf Gundersen, of La Crosse, gave an illustrated paper on "Bladder Neck Obstruction."

Waukesha

About twenty physicians, members of the Waukesha County Medical Society, met on January 6 at The Spa for a business meeting and a program. Speakers were Dr. C. C. Edmondson, Dr. Kenneth Browne, and Dr. W. E. Nicely.

Ninth Councilor District

The winter meeting of the Ninth Councilor District Medical Society was held at Wisconsin Rapids on January 14. Dinner was served at the Hotel Witter at six o'clock, after which the following program was given: (1) "The Diagnosis of Neurological Disease in General Practice" by Dr. R. S. Baldwin, Marshfield; (2) "The Diagnosis and Treatment of Anemias" by Dr. Ovid O. Meyer, Division of Medicine, Wisconsin General Hospital, Madison.

Milwaukee Academy of Medicine

Dr. O. R. Lillie was chosen president-elect of the Milwaukee Academy of Medicine at its fiftieth annual meeting at the University Club on January 19.

Last year's president-elect, Dr. H. C. Schumm, and the following other physicians took office: Dr. William M. Jermain, vice president; Dr. T. L. Squier, secretary; Dr. John J. Pink, treasurer; Dr. Walter P. Blount, librarian; Dr. John L. Garvey, membership committeeman.

ACQUIRE THE HABIT

of using the

MEDICAL LIBRARY SERVICE

412 N. Charter St.

Madison

The Woman's Auxiliary

President—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
President Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior

Hygeia Chairman—
Mrs. H. H. Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

Midwinter Meeting of Executive Board, Milwaukee, February 24, 1937

MRS. C. A. HARPER, president of the Woman's Auxiliary, has announced that the Executive Board of the Woman's Auxiliary to the State Medical Society of Wisconsin, will hold its midwinter meeting at the University Club in Milwaukee on Wednesday, February 24.

At this meeting of the executive board all of the state officers will make their reports to the board.

Mrs. Harper has invited Mrs. Robert E. Fitzgerald, president of the Woman's Auxiliary to the American Medical Association; Mrs. Eben J. Carey, treasurer of the national auxiliary; and Mrs. J. Gurney Taylor, corresponding secretary of the Woman's Auxiliary to the American Medical Association.

Others invited include Mrs. Harold Cannon, Milwaukee, who has been appointed general chairman for the 1937 annual meeting of the Woman's Auxiliary, and the president of each county auxiliary and the president-elect of each local auxiliary.

Officers of local county medical societies are urged to send to Mrs. James C. Sargent a list of all of their members who plan to attend the meeting of the Woman's Auxiliary to the American Medical Association to be held in Atlantic City. Mrs. Sargent's address is 2924 North Stowell Avenue, Milwaukee.

Brown—Kewaunee—Door

The annual meeting of the Woman's Auxiliary to the Brown-Kewaunee-Door County Medical Society, with election of officers, was held in the Pompeian Room of the Northland Hotel, Green Bay, on January 19. Reports of the activities of the past year were given by the chairmen of all standing committees.

Dane

The Woman's Auxiliary to the Dane County Medical Society had a luncheon meeting on January 13 at the University Club, Madison. The speaker was Dr. H. M. Guilford of the State Board of Health, who has just returned from a national meeting in Washington, D. C., where plans were discussed for a campaign against syphilis.

Kenosha

"The Great Smoky Mountains," an illustrated lecture accompanied with lantern slides was presented by W. E. Dickinson, museum curator, at a meeting of the Woman's Auxiliary to the Kenosha County Medical Society on January 12 in the Woman's Club, Kenosha. The program also included a talk by Dr. C. G. Richards, president of the Kenosha County Medical Society.

Mrs. A. L. Mayfield, the new president of the Auxiliary, presided, and other new officers who assumed their work for the year are as follows: Mrs. A. F. Ruffalo, vice-president; Mrs. Lulu Murphy, secretary; and Mrs. Palmer Good, treasurer.

Committee chairmen for the year have been announced as follows. Program, Mrs. E. F. Andre; Hygeia, Mrs. I. E. Bowing; social, Mrs. Charles Ulrich; publications, Mrs. J. P. Graves; ways and means, Mrs. Theodore Sokow; hospitality and sewing, Mrs. Paul Pifer; archives, Nora Belle Binnie; exhibits, Mrs. C. G. Richards; telephone, Mrs. C. R. Caughey; public relations, Mrs. Murphy.

Manitowoc

The Woman's Auxiliary to the Manitowoc County Medical Society had a one o'clock luncheon meeting at the Catholic Center, Manitowoc, on January 20.

Dr. L. Moriarty, Two Rivers, was the speaker.

Marinette—Florence

The Woman's Auxiliary to the Marinette–Florence County Medical Society entertained at a Christmas ball in the Crystal Room of the Hotel Marinette, Marinette, on December 26.

The proceeds of this party will be used for the national project to place subscriptions for Hygeia, the health magazine, in the public schools of the city.

Milwaukee

The first meeting for 1937 of the Woman's Auxiliary to the Medical Society of Milwaukee County was held on Friday afternoon, January 8, at the Schroeder Hotel, in honor of the new officers and directors of the Auxiliary.

In the receiving line were officers and directors: Mrs. Eben J. Carey, president; Mrs. Robert G. Washburn, president-elect; Mrs. N. Warren Bourne, vice-president; Mrs. Harry O. Zurheide, recording secretary; Mrs. Norbert Enzer, corresponding secretary; Mrs. Edward J. Schelble, treasurer; and directors, Mrs. Henry J. Gramling, Mrs. Louis M. Warfield, Mrs. W. H. Washburn, Mrs. William M. Jermain, Mrs. James C. Sargent, Mrs. John J. McGovern, and Mrs. Edwin P. Bickler; also Mrs. E. F. Peterson, wife of the president of the Medical Society of Milwaukee County, and the past-presidents of the Auxiliary.

Mrs. Louis M. Warfield was in charge of the musicale, and the program included Mrs. M. E. Gabor, pianist; a trio composed of Mrs. Benjamin Lieberman, violin, Mrs. Lester Wieder, cello, with Mrs. A. P. Strauss at the piano; and Mrs. John W. Truitt, vocal soloist.

The candlelight tea in the Crystal Ballroom was in charge of Mrs. Ralph D. Bergen, social chairman, and her committee.

Members of all auxiliaries to the county medical societies in Wisconsin are cordially invited to attend meetings of the Auxiliary to the Medical Society of Milwaukee County. These meetings are held the second Friday of each month, and reservations may be made with Mrs. Ralph D. Bergen, 2503 East Stratford Court, Milwaukee, telephone Edgewood 4211.

The next meeting is scheduled for Friday, February 12, at 12:30 o'clock noon, Hotel Schroeder, and will be a Valentine luncheon. Dr. E. F. Peterson, president of the Medical Society of Milwaukee County, will speak on the relationship of the Woman's Auxiliary to the county medical society; and Dr. Marcos Fernan–Nunez, professor of pathology at Marquette University, has been invited to speak on the political situation today in Spain.

Outagamie

Mrs. Carl D. Neidhold assumed the presidency of the Woman's Auxiliary to the Outagamie County Medical Society at their recent annual meeting by virtue of having been chosen president-elect at last year's meeting. She succeeds Mrs. J. J. Laird, Black Creek, in the position.

Other officers chosen were Mrs. W. H. Towne, Hortonville, president-elect; Mrs. Donald Curtin, Kimberly, reelected treasurer; and Mrs. Milo Swanton, secretary.

Committee chairmen are as follows:

Hygeia, Mrs. Julia Reinick
Public relations, Mrs. J. L. Benton
Program, Mrs. R. V. Landis
Press and publicity, Mrs. E. F. McGrath
Archives and history, Mrs. Albert Leigh
Membership, Mrs. Stephen Konz
Social, Mrs. David Gallaher

Polk

Mrs. W. B. Cornwall acted as hostess at a turkey dinner at the Princess Cafe, Amery, for members of the Woman's Auxiliary to the Polk County Medical Society.

At the business meeting which followed it was voted to place Hygeia, the health magazine of the American Medical Association, in every high school in the county. Each member is to place posters concerning the Radio Health Hour, sponsored by the American Medical Association, in each doctor's office, library, and high school in the county.

The newly elected officers are as follows:

President, Mrs. Lorne Campbell, Clear Lake
President-Elect, Mrs. L. O. Simenstad, Osceola
Secretary, Mrs. A. N. Nelson, Clear Lake
Treasurer, Mrs. D. A. Maas, Webster
Hygeia chairman, Mrs. W. C. Andrews, Frederic
Public relations chairman, Mrs. G. B. Noyes, Centuria
Program chairman, Mrs. H. C. Caldwell, St. Croix Falls
Historian, Mrs. J. A. Riegel, St. Croix Falls

Portage

Mrs. G. W. Reis, of Junction City, outgoing president of the Woman's Auxiliary to the Portage County Medical Society, entertained the Auxiliary on January 18 at the home of Mrs. Fred A. Marrs in Stevens Point.

Mrs. Earle E. Kidder was elected president for the coming year; Mrs. Harold Coon, president-elect; and Mrs. D. S. Rice, secretary and treasurer. It was decided to change the time of meeting from Monday afternoon to the first Monday evening of each month.

Sheboygan

When members of the Woman's Auxiliary to the Sheboygan County Medical Society had their monthly luncheon meeting on January 6 at Benedict's Heidelberg, Sheboygan, they were addressed

by Mrs. Dorothy G. Thornton, instructor of home economics at the Vocational School.

Mrs. F. A. Leighton, of Sheboygan Falls, new president of the Auxiliary, announced her committees for this year as follows: Mrs. R. C. Meyer, chairman of the program committee, assisted by Mrs. Willard Sonnenburg and Mrs. John Boersma; Mrs. Theodore Gunther, in charge of press and publicity; Mrs. H. J. Hansen, head of the membership committee; and Mrs. Otto Gunther, in charge of public relations.

Other officers serving with Mrs. Leighton during the ensuing year are Mrs. Paul Mason, of Sheboygan, president-elect, and Mrs. Adam Pfeiler, of Sheboygan Falls, secretary and treasurer.

Waukesha

The Woman's Auxiliary to the Waukesha County Medical Society met on January 6 at the Avalon Hotel, Waukesha, at which time their speaker was Mrs. Herbert Sydow, of Waukesha.

News Items and Personals

Dr. Harry A. Vedder was elected chief of staff of St. Joseph's Hospital, Marshfield, at a recent staff meeting. He succeeds Dr. W. G. Sexton, who served as chief of staff during 1936. Dr. Lyman A. Copps was reelected vice-chief of staff, and Dr. G. L. McCormick succeeds Dr. Karl H. Doege as secretary.

The officers of the Marshfield Clinic have been reelected to serve another year: Dr. R. P. Potter, president; Dr. W. G. Sexton, vice-president; Dr. William Hipke, treasurer; and Dr. Lyman A. Copps, secretary.

—△—

Dr. L. E. Fazen was elected president of the physicians' staff at St. Mary's Hospital, Racine, at a meeting on December 16. Other new officers are Dr. F. W. Pope, vice-president, and Dr. Russell M. Kurten, secretary.

—△—

Dr. A. C. Florin, Fond du Lac, has been installed as coroner of Fond du Lac County. This is the first time in the county's history that a physician has occupied this office.

—△—

Dr. E. F. Hoffman, of Cameron, has accepted the State appointment of public health director in Dane County. His offices are in Madison.

—△—

Dr. Walter K. Gray announces his association with Dr. Walter M. Kearns, 238 West Wisconsin Avenue, Milwaukee.

—△—

Dr. L. B. Hansen, formerly of Stevens Point, is now located at Crandon.

—△—

The University of Louisville Medical School, the oldest medical school in existence west of the Allegany Mountains and the oldest municipal medical college in the United States, celebrates its centennial from March 31 to April 3, 1937, at Louisville, Kentucky.

—△—

The Mid-West Conference on Occupational Disease will be held at the Hotel Statler in Detroit on May 3 to 7 inclusive, in conjunction with the annual meetings of the American Association of Industrial Physicians and Surgeons, and Michigan Association of Industrial Physicians and Surgeons.

—△—

In accordance with a request from Doctor Parran, Surgeon General of the United States Public Health Service, President S. E. Gavin of Fond du Lac has appointed the following special committee of the State Medical Society of Wisconsin on the subject of study of syphilis: Dr. James C. Sargent, Milwaukee, chairman; Dr. C. W. Giesen, Superior; Dr. E. L. Tharinger, Milwaukee; Dr. W. J. McKillip, Milwaukee; and Dr. Gunnar Gundersen, La Crosse.

DRAMA OF "THE GUARDIANS OF YOUR HEALTH"

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the state-owned radio stations WHA, Madison (940). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

Feb. 16	Rickets.
Feb. 17	Indigestion.
Feb. 18	The Heart.
Feb. 23	Tuberculosis.
Feb. 24	Headaches.
Feb. 25	Cancer and The Women's Field Army.
Mar. 2	Erysipelas.
Mar. 3	First Aid.
Mar. 4	Your Eyes and Their Care.
Mar. 9	Anemia.
Mar. 10	Germs and Contagious Diseases.
Mar. 11	The Clothes Moth.

MARRIAGES

Dr. Arthur David Bussey, Two Rivers, and Miss Henrietta S. Heller, Milwaukee, on November 14, 1936.

Dr. E. A. Schoenecker, Lake Mills, and Miss Dagmar P. Lee, Milwaukee, on October 24, 1936.

DEATHS

Dr. **Gustave A. Thielke**, practicing physician and surgeon in Wausau for more than thirty years, died December 21 after an illness of three months. He was born in Huilsburg in 1875. After graduation from the Milwaukee Medical College in 1903, he established offices in Wausau.

Doctor Thielke was a member of the Marathon County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association. He served as captain in the medical corps during the World War and held the rank of major in the U. S. reserve unit.

Surviving are his widow and two children, Dr. Eugene O. Thielke and Miss Bernice Thielke.

Dr. **Thomas J. Pendergast**, a physician in Milwaukee for forty-three years, died of heart trouble on December 22 at St. Joseph's Hospital.

He was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association. He was on the staff of St. Mary's Hospital and for more than thirty years had given his services to the St. Vincent Infants' Asylum.

Born at Templeton in 1863, Doctor Pendergast was graduated from Carroll College and from Northwestern University Medical School in 1893.

Surviving are his widow, two daughters, and a son.

Dr. **Bryant Smith**, who practiced medicine in Milwaukee for several years but who for the last few years had been living in retirement in Oconomowoc, died on January 7 at the age of seventy-one years. He was graduated from the Columbia University College of Physicians and Surgeons, New York, in 1891.

He is survived by his widow.

SOCIETY RECORDS

New Members

Geo. H. Wegmann, 2650 N. Hopkins St., Milwaukee.
D. J. Zubatsky, 2304 N. 12th St., Milwaukee.
F. H. Kehlnhofer, 7623 W. State St., Wauwatosa.
Max Bachhuber, Alma.
T. J. Nereim, Whitehall.
L. E. Rauchschwalbe, Wauzeka.
Milan G. Helmbrecht, Elkhorn.
Bertha Reynolds, Lone Rock.
Charles J. Brady, Lake Geneva.
T. J. O'Leary, East Troy.
K. D. L. Hannan, Platteville.

Reinstated Members

C. F. Cheli, Columbus.
A. J. Fredericks, Columbus.
C. O. Diamond, Milwaukee.
J. A. Megna, Milwaukee.
E. J. O'Neill, Milwaukee.
W. J. Fleming, West Allis.
B. I. Bender, Milwaukee.
S. H. Wolter, Milwaukee.
J. A. Cox, Milwaukee.
Max Bornstein, Milwaukee.

Changes in Address

H. J. Belson, St. Nazianz, to 634 No. 8th St., Manitowoc.

J. J. Collins, Racine, to John D. Archibald Hospital, Thomasville, Ga.

Lester B. Hansen, Stevens Point, to Crandon.

Income Tax Provisions Affecting the Medical Profession

I. FEDERAL

LIABILITY TO FILE

Returns must be made to the Collector of Internal Revenue of the District in which the individual affected resides before March 15, 1937, at which time the tax is due and payable. In the event the taxpayer desires to pay his tax on the installment basis, the first installment of one quarter of the tax is due on March 15, 1937, and a quarterly installment every three months thereafter, namely, June 15, September 15, and December 15. A written extension of the time for filing a return can be had for reasonable cause by filing application therefore with the collector of internal revenue in the district in which the applicant resides, but such application should be made sometime before March 15, as a penalty may be imposed for failure to file.

Responsibility for making these returns is vested in the individual. As will be noted from reading the paragraphs following, liability to make a return depends not on whether one has a tax to pay, but on the amount of his reportable income.

Under regulations effective in 1936, all persons deriving incomes from a business or profession, or both, are required to file their return upon Form 1040 (the large form). This form is also used by persons reporting an income of $5,000 or over, regardless of the nature of its source. The small form, or 1040A, is for persons who secure their incomes from wages, salaries or interest alone, and where the gross amount is less than $5,000.

The large form, or 1040, will be mailed to all Wisconsin physicians by the Collectors of Internal Revenue. If such blank is not received, apply to the Collector of Internal Revenue of the district in which you reside.

Every person having a *gross* income of $5,000 or more must file a return, regardless of the amount of

NEW FEDERAL REGULATION

Aside from the fact that surtax rates upon incomes in access of $50,000 had been increased, the one marked change in the federal income tax affecting all physicians is that dividends are now subject to both the normal tax and the surtax. Previously, dividends were subject to the surtax only.

The digest of federal laws herein presented has been submitted to the officers of the Internal Revenue Service and checked by them for accuracy.

of his *net* income or of his marital status. Where a husband and wife living together have an aggregate *gross* income of $5,000 or more, they must file separate returns, or a joint return, regardless of the amounts of their joint or individual *net* incomes.

All of the following persons *must* file a return where their *gross* income was less than $5,000: (1) every unmarried person and every married person not living with husband or wife, whose *net* income was $1,000 or more; (2) every married person living with husband or wife, whose *net* income was $2,500 or more. Where the aggregate *net* income of husband and wife, living together, was $2,500 or more, each may make an individual return or they may unite in a joint return.

The normal tax rate for the calendar year 1936 under the Revenue Act of 1936 is 4 per cent on the *net* income in excess of credits. Surtaxes, which are graduated, are applicable only to those individuals whose net incomes (after deduction of personal exemptions and the credit for dependents, but no other credits) exceed $4,000.

If the marital status of a taxpayer changes during the taxable year, the personal exemption shall be an amount which bears the same ratio to $1,000 as the number of months during which the taxpayer was single bears to twelve months, plus an amount which bears the same ratio to $2,500 as the number of months which the taxpayer was married and living with husband or wife, or was the head of a family, bears to twelve months. For this purpose a fractional part of a month shall be disregarded unless it amounts to more than half a month, in which case it shall be considered as a full month. Changes in the credit for dependents allowed a taxpayer are apportioned in like manner.

EARNED INCOME CREDIT

A credit against net income, for the purpose of the normal tax only, is allowed by the 1936 law, calculated at 10 per cent of the earned net income. All net income up to $3,000 is considered to be earned net income regardless of its source, and the maximum earned net income that may be considered is $14,000. Thus the maximum earned income credit allowable against net income for the purposes of the normal tax is 10 per cent of $14,000 or $1,400.

Earned net income is defined as the excess of the amount of earned income over the sum of deductions and expenses properly chargeable against or allocable to the earned income. Under the statute earned income means "wages, salaries, professional fees, and other amounts received as compensation for personal services actually rendered." In a professional occupation the taxpayer may include as earned income all professional fees even though assistants perform the services, provided the clients are those of the taxpayer.

DETERMINATION OF INCOME

The term *gross* income as applied to a physician includes the total compensation received by him during the taxable year for professional services, in whatever forms such compensation may be paid, plus the amount received in interest, rent, dividends, securities, or from the transaction of any business conducted by such physician.

The term *net* income as applied to a physician means the *gross* income computed under the above definition less allowable deductions for professional expenses. What constitutes allowable deductions will be considered in detail in the subsequent paragraphs.

The term *deduction* as applied to a physician means any amount allowable as a professional expense. Various classes of deductions are treated in detail below.

The terms *personal exemption* and *credit for dependents* have reference to the amounts allowed because of one's marital status or family obligations. These matters are treated in full detail in Instruction 22 of the income tax return blank.

ITEMS NOT REPORTABLE AS INCOME

The following items are not required to be reported because they are exempt from taxation. Allowances received under the War Risk Insurance Act; gifts, bequests, devises and inheritances; dividends on stock of federal reserve banks, land banks and intermediate credit banks; dividends from corporate earnings accumulated prior to March 1, 1913; amounts received through health, accident or workmen's compensation insurance, and damages received by the taxpayer for illness or injuries suffered by him; life insurance proceeds paid by reason of death of the insured (where a policy matures during life the amount of the proceeds, in excess of the net premiums paid, is taxable income); state court jury fees; stock dividends (i. e., issuance of its own stock by a corporation as a dividend to its shareholders); and compensation paid to its officers and employees by a state or political subdivision thereof for services rendered in connection with the exercise of an essential governmental function of the state or political subdivision.

All interest received from obligations of a state or political subdivision thereof; from securities issued under the Farm Loan Act; interest on first Liberty Loan 3½% bonds and U. S. bonds issued prior to September 1, 1917, and interest on the obligations of the possessions of the U. S. need not be included in the computation of *gross* income.

The following exceptions should be noted, however. Interest received on Liberty 4% and 4¼% bonds and Treasury 3%, 3⅛%, 3⅜%, 3¾%, 4%, and 4¼% bonds are exempt up to $5,000 aggregate principal. All interest received on such obligations in excess of $5,000 total holdings is reportable for surtax purposes, but is not subject to the normal tax.

PROFIT OR LOSS ON SALE OF CAPITAL ASSETS

All assets are considered to be "capital assets" except property or merchandise held by the taxpayer for sale to customers in the ordinary course of business. Thus stocks and bonds are included as capital assets.

The determination of taxable profit or deductible loss from the sale of capital assets is changed materially in the 1934 law. The taxpayer must consider on the sale of capital assets:

100% of gain or loss if the capital asset has been held for not more than 1 year.

80% of gain or loss if the capital asset has been held for more than 1 year, but not for more than 2 years.

60% of gain or loss if the capital asset has been held for more than 2 years, but not for more than 5 years.

40% of gain or loss if the capital asset has been held for more than 5 years but not for more than 10 years.

30% of gain or loss if the capital asset has been held for more than 10 years.

The resulting gains and losses should then be balanced off against one another and the net difference reported as income if a gain and as a deduction if a loss. If the net difference is a loss, a further limitation is placed thereon in that the deduction on the tax return may not exceed $2000. These matters are treated more fully in Instruction 8 of the income tax return blank.

PERSONAL EXEMPTIONS AND CREDIT FOR DEPENDENTS

In the case of a single person, a personal exemption of $1,000 is allowed as a deduction from net income subject to tax. In the case of the "head of a family" or of a married person living with husband or wife, a personal exemption of $2,500 is allowed. If a husband and wife living together make separate returns, the personal exemption may be taken by either of them or divided between them, but may not exceed $2,500 in the aggregate.

A credit of $400 is allowed for each person, other than husband or wife, dependent upon and receiving his *chief* support from the taxpayer, if such dependent person is under 18 years of age, or is incapable of self-support because mentally or physically defective.

GREEN SHEET

The Commissioner requires the filing of duplicate income tax returns (green sheet). This will be made available to the proper state and municipal tax authorities when requested but is not available to the public.

INDEX TO DEDUCTIONS

An index of deductions which will be allowed on the tax return, some of which are peculiar to physicians, are listed below. The number given after each heading refers to the paragraph numbering on the pages following. The paragraphs explain in detail how to arrive at the deductions and depreciation.

With reference to depreciation allowable, the rate of depreciation not only depends on the prospective life of the property when acquired but also on the particular conditions under which the property is used as reflected in the taxpayer's operating policy.

Automobiles (1).
  Depreciation.
  Insurance (1), (11-b).
  Maintenance.
  Professional use.
  Repairs.
  Salary of chauffeur.
Bad debts (2).
Bandages (4).
Depreciation.
  Automobiles—25% annually on cost price. (1)
    Classification includes snowmobiles and other motive equipment.
  Instruments (4).
    20% annually on cost of surgical instruments and general equipment; 25% on cost of x-ray equipment.
  Medical library (3).
    10% annually of cost price.
  Office equipment (5).
    10% annually of cost price.
Dues (7).
Equipment (4).
  Both long and short-lived.
Fire losses (11-d).
  Professional equipment and other property.
Insurance premiums.
  Automobile (1).
  Malpractice (11-b).
  Professional equipment (11-b).
Laboratory materials and expenses (4) (11-c).
Lawsuits (11-a).
Library (3).

Licenses (8).
Medical meetings (9).
Medical supplies (4).
Office expenses (5).
  Heat, light, supplies, telephones, water, short-lived office equipment, annual depreciation on furnishings and fixtures.
Office rental (6).
Postgraduate studies (9).
Professional dues (7).
  County Society.
  State Society, $15.
  Special societies as:
    College of Surgeons.
    College of Physicians.
  Any other paid in interest of profession.
Professional subscriptions (7).
Salaries (10).
Scientific meetings (9).
Sale of spectacles (11-e).
Taxes and licenses (8).
  Automobile license.
  State taxes on gasoline and oil required for professional use of car.
  License to prescribe alcohol.
  Occupational tax.
  Re-registration fees.
  U. S. Narcotic tax.
  Taxes on equipment or materials required in professional work.
Theft of professional equipment (11-d).
Travelling expenses (9).
  Both professional calls and scientific meetings.
Wages and salaries (1) (10) (11-c).
  Chauffeur (1).
  Clerk (10).
  Laboratory assistant (10) (11-c).
  Maid (10)
  Nurse (10).
  Stenographer (10).
  Any other employee rendering service in connection with taxpayer's practice or in the care and treatment of patients. (10).

DEDUCTIONS ALLOWABLE

1. Automobiles

The cost of operation and maintenance of an automobile used in making professional visits is deductible. These costs include gasoline, oil, tires, insurance, repairs, garage rental, and depreciation. If the same car is used for both professional and personal purposes, only such part of the maintenance as arises out of the use for professional purposes is deductible. Sums spent for taxi, bus, or railroad fare, while on professional calls, is deductible.

Depreciation is also deductible and is based upon the estimated useful life of the car. If that period be 4 years, 25 per cent depreciation based on cost price may be taken annually for 4 years. What has been said with respect to automobile applies to other motive equipment.

2. Bad Debts

If the physician's books are kept according to the "Cash Receipts and Disbursements" system, he may not charge off any unpaid debts because "if his books are kept according to this system, he is only reporting as gross income those accounts which have proved to be good and therefore bad accounts cannot be deducted because they have already been excluded."

If the books are kept upon an "accrual basis" (that is, on the basis of expenses actually incurred and payable even though not yet paid, or income earned although not yet collected), it is permissible to charge off all debts which have been definitely ascertained to be worthless, and have been charged off on the books or records, during the fiscal year covered by the report. *We urge all members who may be keeping accounts on the "accrual basis" to secure permission to change to a cash basis.*

3. Library

Most physicians maintain a professional library. Taken as a whole it is doubtful whether the useful life of such a library exceeds ten years. Accordingly annual depreciation equal to 10 per cent of the cost of such library may be deducted.

4. Medical Supplies and Instruments

Medicines used in the physician's office to treat patients, bandaging, laboratory materials, and all other medical supplies required for the operation of a physician's office may be deducted as necessary expenses, as may equipment, the life of which is less than one year. The average useful life of surgical instruments and equipment generally is estimated at 5 years which means that 20 per cent of the cost may be taken as annual depreciation. X-ray equipment may be depreciated at 25 per cent of cost annually.

5. Office Expense

General office expense is deductible. Among the principal items are heat, light, office supplies, telephone rentals, water, office equipment having a useful life of a year or less, and depreciation on office furnishings and fixtures. Ten per cent of original cost is a reasonable average depreciation rate for office equipment, furnishings and fixtures.

6. Office Rent

If a physician pays rent to another person for office space, he is permitted to deduct the amount from his gross income. This includes regular office space in a rented home provided office hours are maintained there. Where a physician maintains his offices in a rented home he may deduct as rental expenses only that proportion of the total rent paid which his office space bears to the entire house. If he owns his home and maintains an office in it, he cannot claim a deduction for office rent.

7. Professional Dues

Dues paid to professional associations to which he belongs in the interest of his profession are deductible. Subscriptions to all medical journals or scientific publications are likewise deductible.

8. Taxes and Licenses

Any taxes paid upon materials required in professional work are exempt. All licenses which the physician is required to take out may be deducted. This includes the license to prescribe alcohol, narcotic license, automobile license, local occupational and re-registration taxes, and state taxes on gasoline and motor oil for professional use of car.

9. Traveling Expenses

Traveling expenses necessary for professional visits to patients are deductible. Traveling expenses in bona fide attendance upon scientific meetings are deductible. The expenses of attending postgraduate medical courses are *not* deductible, however.

10. Wages and Salaries

Deductions are permitted for the salary of a nurse, laboratory assistant, stenographer or clerical worker employed in the office so long as the duties of such persons are in connection with the physician's professional work. Wages paid to maids taking care of the office and answering the telephones are also deductible, as are any sums paid employees for services rendered in connection with the taxpayer's practice, or the care and treatment of patients.

11. Miscellaneous

(a) **Expense of Defending Malpractice Suits**—Expenses incurred in the defense of a suit for malpractice are deductible as business expense. Expenses incurred in the defense of a criminal action, however, are not deductible.

(b) **Insurance Premiums**—Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries by a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment, and damage to or loss of professional equipment by fire or otherwise. Under professional equipment is to be included any automobile belonging to the physician and used for strictly professional purposes.

(c) **Laboratory Expenses**—The deductibility of the expenses of establishing and maintaining laboratories is determined by the same principles that determine the deductibility of other corresponding professional expenses. Laboratory rental and the expenses of laboratory equipment and supplies and of laboratory assistants are deductible when, under corresponding circumstances, they would be deductible if they were part of a physician's general office expense.

(d) **Losses by Fire, Theft, etc.**—Loss of and damage to a physician's equipment by fire, theft or other cause, *not compensated by insurance or otherwise recoverable*, may be computed as a business expense and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent it has not been made good by repair and the cost of repair claimed as a deduction. Deductions may likewise be taken for loss of or damage to *non-professional* property of a physician caused by fire, flood, theft or otherwise, *where not compensated for by insurance or otherwise recoverable.*

(e) **Sale of Spectacles**—Oculists who furnish spectacles, etc., may enter as income money received from such sales and deduct as an expense the cost of the article sold. Entries on the physician's account books should, in such cases, show charges for services separate and apart from charges for spectacles.

II. STATE

LIABILITY TO FILE

Returns of 1935 income must be made to the assessor of incomes of the district in which the taxpayer resides, on or before March 15. A written extension of the time in which to file may be granted for cause, but may not exceed 30 days.

Every person, including emancipated minors under 18 and minors 18 to 21, who received a net income of $800 or more, if single, and $1,600 or more if married, must file a return whether notified to do so or not.

The normal tax, which is graduated, varies from 1 per cent on the first $1,000 of net income to 7 per cent on net incomes in excess of $12,000. The teachers' retirement fund surtax is based on one sixth of normal taxes after deducting $37.50 from the net normal tax.

The information herein contained has been submitted to, and approved by Mr. Joel S. Hendrickson, chief auditor for the Wisconsin Tax Commission.

Chapter 505, Laws of 1935, provides a surtax on net incomes of all except corporations, which tax is equal to 60 per cent of the normal income tax. This refers to incomes received in the years 1935 and 1936.

In general, the definitions contained in the preceding federal income tax digest are applicable as well to state taxes.

INSTRUCTIONS ON THE FILING OF SEPARATE INCOME TAX RETURNS FOR HUSBAND AND WIFE

Section 71.09 (4) (c) requiring that the incomes of husbands and wives be combined for assessment purposes has been held unconstitutional by the United States Supreme Court. To give effect to this decision the Tax Commission has adopted the following regulations:

1. Wives must file a separate return on Form 1B if they have income of their own, but in case they have no income no return need be filed.

2. In the event that both husband and wife have income and file separate returns, the personal exemption of $17.50 will be divided between the two according to their own choice, that is to say, the husband may claim it all, or the wife may claim it all, or they may divide it between them as they see fit.

In the event that they express no choice in the matter of the division of the personal exemption, the assessor of incomes shall divide it between them so as to give them the full benefit of the deduction. To illustrate, assume the husband has an income of $2,000 and the wife an income of $500, and they express no choice as to the division of the personal exemption. The assessor of incomes will apply $5 of their personal exemption against the wife's return, thereby wiping out the tax on her entire income, and apply the remaining $12.50 against the tax of the husband.

3. The income of children under eighteen years of age shall be included in the return of the husband or head of the family, and the personal exemptions for such children shall likewise be allowed to the husband or the head of the family, unless it can be established to the satisfaction of the assessor that they are in fact being supported by the wife, in which event the wife will be entitled to deduction for the personal exemptions of the children.

PERSONAL CREDITS AND EXEMPTIONS

The statutes themselves are so clear as to personal exemptions, credits for dependents, and the date determining the personal status of a taxpayer for income tax purposes that they are quoted here in full.

"71.05 *Exemptions.*

(1) There shall be exempt from taxation under this chapter income as follows, to wit:

(a) Pensions received from the United States.

(b) All inheritances, devises, bequests and gifts received during the year.

(c) All insurance received by any person or persons in payment of a death claim by any insurance company, fraternal benefit society, or other insurer, except insurance paid to a corporation or partnership upon the policies on the lives of its officers, partners or employes.

(2) There shall be deducted from the tax after the same shall have been computed according to the rates in section 71.06, a personal exemption for natural persons as follows:

(a) For an individual, eight dollars.

(b) For husband and wife or head of a family, seventeen dollars and fifty cents. For the purposes of this chapter, the term "head of a family" means a natural person who maintained a household and supported therein himself and one or more persons who were dependent upon him for support; but no additional exemption shall be allowed for those dependent upon the head of a family except in case of a widow or widower supporting children under the age of eighteen years.

(c) For each child under the age of eighteen years who is actually supported by and dependent upon the taxpayer for support, an additional four dollars.

(d) For each additional person, except persons defined in subsection (2) (c) of section 71.05, who is actually supported by and entirely dependent upon the taxpayer for his support an additional four dollars, except in case of head of a family. In computing taxes and the amount of taxes payable by persons residing together as members of a family, the income of the wife and the income of each child under eighteen years of age shall be added to that of the husband or father, or if he be not living, to that of the head of the family and assessed to him except as hereinafter provided. The taxes levied shall be payable by such husband or head of the family, but if not paid by him may be enforced against any person whose income is included within the tax computation.

(e) The personal exemptions provided by this section shall be determined by the personal status of a taxpayer on the last day of the last year included in the computation of income except as otherwise provided in this chapter."

1933 LEGISLATIVE CHANGES

Among the changes in income taxation enacted by the 1933 regular session of the Wisconsin Legislature are five which are summarized here because of their applicability to physicians as well as to all other taxpayers.

1. Back Taxes and Refunds. The Tax Commission may conduct audits and collect back taxes at any time within 6 years after the close of the period covered by a given return, except that the Tax Commission is not barred by the lapse of any period of time in cases of evasion, fraudulent intent, or failure to file. Refunds are also obtainable by a taxpayer if he makes claim therefor within 6 years after the period for which he seeks such refund.

2. Compromise and Payment of Delinquent Taxes. Income taxes that were assessed and became delinquent prior to July 1, 1934, may, under certain conditions, be compromised or provisions may be made under which said delinquent taxes may be paid on

the installment basis. In cases where the delinquent tax is compromised the net amount agreed upon must be paid within ten days from the date of the acceptance of the compromise. There is also a provision whereby the Tax Commission may at any time within three years after the date of the compromise proceed to collect the entire amount that had become delinquent should the financial condition of the taxpayer enable him to make such payment. In cases in which the taxpayer is permitted to pay the delinquent tax on the installment basis the tax, plus penalty and interest, must be paid in full and upon the agreed basis. The installment basis, however, does not contain any provision for a reduction of the delinquent tax.

Delinquent income taxes may be compromised by the Tax Commission, and the compromised amount including penalties and interest paid in convenient installments. This will prove highly advantageous to numbers of taxpayers now in arrears.

3. Computation and Payment of 1933 Income Taxes. Taxpayers are now required to compute their own income tax on the face of the return blank and to make an initial payment on or before the 15th of March unless their fiscal year varies from the calendar year. The initial payment must be the entire tax if the latter does not exceed $5, and must be at least one third the total tax and not less than $5 if the tax exceeds the latter amount. The balance of the tax must be paid by August 1. A 2 per cent discount is allowed for payment in full by March 15.

The state income tax is now payable to the Tax Commission through designated representatives at the local assessor's office of the district in which the taxpayer resides.

4. Contested Assessments. The taxpayer who is contesting his income tax assessment may deposit the amount assessed plus interest to the first of the month following payment with the state treasurer. If it later be determined that the taxpayer was over-assessed, the overpayment so deposited will be refunded with 6 per cent interest from the date of deposit.

5. Emergency Gift Tax. This law provides, in brief, that the donor and donee of any transfer by gift of property of any kind shall report such transfer on their respective income tax returns on or before the fifteenth day of March to the assessor of incomes of the assessment district in which such donor and such donee file their respective income tax returns. The assessor of incomes of the assessment district in which the donee resides shall assess the tax due on such transfers and the tax so assessed shall be paid to the same officer and at the same time as income taxes are paid.

The tax is imposed on transfers of property made between July 8, 1933, and July 1, 1937. The rates are graduated from 2 per cent to 8 per cent for gifts valued at less than $25,000 and reach a maximum of 15 per cent on large transfers. The principal exemptions from the tax are: (a) payments by an employer for the benefit of his employee or the latter's family, including medical services, and (b) transfers of reasonable amounts of property to members of one's immediate family for current maintenance, support and education.

DEDUCTIONS ALLOWABLE FOR PROFESSIONAL EXPENSES A STATUTE

The statute is so explicit on what constitutes allowable deductions of major items of expense that it has seemed advisable to insert portions of it for the aid of physicians making state returns.

"71.04 *Deductions From Incomes of Persons Other Than Corporations.* Persons other than corporations, in reporting incomes for purposes of taxation, shall be allowed the following deductions:

(1) Payments made within the year for wages or other compensation for services actually rendered in carrying on the profession, occupation or business from which the income is derived. But no deduction shall be made for any amount paid for services actually rendered in the carrying on of the profession, occupation or business from which the income is derived unless there be reported the name and address and amount paid each person to whom a sum of seven hundred dollars or more shall have been paid for services during the assessment year. No deduction shall be allowed under this section for any amounts expended for personal, living or family expenses.

(2) The ordinary and necessary expenses actually paid within the year in carrying on the profession, occupation or business from which the income is derived, including a reasonable allowance for depreciation by use, wear and tear of the property from which the income is derived, * * *

(3) Losses actually sustained within the year and not compensated by insurance or otherwise, provided that no loss resulting from the operation of business conducted without the State, or the ownership of property located without the State, may be allowed as a deduction, and provided further that no loss may be allowed on the sale of property purchased and held for pleasure or recreation and which was not acquired or used for profit, but this proviso shall not be construed to exclude losses due to theft or to the destruction of the property by fire, flood or other casualty. No deduction shall be allowed under this subsection for any loss claimed to have been sustained in any sale or other disposition of shares of stock or securities where it appears that within thirty days before or after the date of such sale or other disposition the taxpayer has acquired (otherwise than by bequest or inheritance) or has entered into a contract or option to acquire substantially identical property and the property so acquired is held by the taxpayer for any period after such sale or other disposition.

(4) Dividends, except those provided in section 71.02 (2) (b) 2 and 3, received from any corporation conforming to all of the requirements of this subsection. Such corporation must have filed income tax returns as required by law and the income of such corporation must be subject to the income tax law of this State. The principal business of the corporation must be attributable to Wisconsin and for the purpose of this subsection any corporation shall be considered as having its principal business attributable to Wisconsin if 50 per cent or more of the entire net income or loss of such corporation after adjustment for tax purposes (for the year preceding the payment of such dividends) was used in computing the average taxable income provided by chapter 71 * * *

(5) Interest paid within the year on existing indebtedness; provided, the debtor reports the amount so paid, the form of the indebtedness, together with the name and address of the creditor. But no interest shall be allowed as a deduction if paid on an indebtedness created for the purchase, maintenance or improvement of property, or for the conduct of a business, unless the income from such property or business would be taxable under this chapter.

(6) Taxes other than inheritance and special improvement taxes upon the property or business from which the income hereby taxed is derived paid by such persons during the year, including therein taxes imposed by the State of Wisconsin or the United States government as income taxes; provided, that such portion of the deduction for federal income taxes as may be allowable shall be confined to cash payments made within the year covered by the income tax return; and provided further, that deductions for income taxes paid to the United States government shall be limited to taxes paid on net income which is taxable under this chapter; and provided further that income taxes imposed by the State of Wisconsin shall accrue for the purposes of this subsection only in the year in which such taxes are assessed.

(7) Contributions or gifts made within the year to the State or any political subdivision thereof for exclusively public purposes, or to any corporation, community chest fund, foundation, or association operating within this State, organized and operated exclusively for religious, charitable, scientific, or educational purposes, or for the prevention of cruelty to children or animals, no part of the net income of which inures to the benefit of any private stockholder or individual, to an amount not in excess of ten per centum of the taxpayer's net income of the calendar or fiscal year as computed without the benefit of this subsection."

B. Index to Deductions

This index is designed to assist the physician in ascertaining what deductions are allowable. The number given after each heading refers to the paragraph numbering on the pages following. The paragraphs explain in detail what deductions and depreciation are allowable.

Automobiles (1).
- Depreciation.
- Insurance (1) (4).
- Maintenance.
- Professional use.
- Repairs.
- Salary of chauffeur.

Bad debts (2).
Bandages (9).
Conventions (8).
Depreciation.
- Automobiles—25% annually of cost price (1).
- Instruments (9).
  - 20% annually of cost price of surgical instruments and general equipment; 25% on x-ray equipment.
- Medical library (6).
  - 10% annually of cost price.
- Office equipment (10).
  - 10% annually of cost price.

Dividends received (3).
Dues (12).
Equipment.
- Office (10).
- Professional (9) (16-a).

Fire, loss by (7).
Instruments (9).
Insurance premiums (4).
- Automobile (1).
- Malpractice (4).
- Professional equipment (4).

Interest paid (5).
Laboratory materials (9), (16-a).
Lawsuits (16-b), (16-d).
Library (6).
Licenses (13).
Losses, by fire, flood, theft, suit, etc. (7) (16-d).
Medical convention (8).
Medical supplies (9).
Miscellaneous (16).
Office expenses (10).
- Heat, light, supplies, telephones, water, short-lived office equipment, annual depreciation on furnishings and fixtures.

Office rental (11).
Postgraduate studies (14).
Professional convention (8).
Professional dues (12).
- County Society.
- State Society, $15.00.
- Special societies as:
  - College of Surgeons.
  - College of Physicians.
- Any other paid in interest of profession.

Professional subscriptions (6).
Salaries (15).
Sale of spectacles (16-c).
Scientific meetings (14).
Subscriptions (6).

Taxes and licenses (13).
Automobile licenses.
Federal income and property taxes.
Import duties, etc.
Personal property taxes.
Professional license fees.
Real property taxes on office owned and used by taxpayer in practice.
Wisconsin income taxes and surtaxes paid.
Theft, loss by (7).
Traveling expenses (14).
Both professional calls and scientific meetings.
Wages and salaries (15).
Chauffeur (1).
Clerk (15).
Laboratory assistant (15) (16-a).
Maid (15).
Nurse (15).
Stenographer (15).
Any other employee rendering service in connection with taxpayer's practice or in the care and treatment of patients. (15).

C. Explanations of Deductions

In several instances below, references are made to numbered paragraphs of the federal portions of this digest. Such references make it unnecessary to recopy explanatory paragraphs applicable equally to the making of state and federal returns.

1. **Automobiles** (See Federal Digest, 1).

2. **Bad Debts** (See Federal Digest, 2).

3. **Dividends Received.** Cash dividends received from a corporation's surplus accumulated since January 1, 1911, are deductible by the persons receiving the dividends, if the following requirements are fulfilled:

(1) The corporation paying the dividend must have filed a Wisconsin income tax return for the year preceding the payment of the dividend.

(2) The income of the corporation paying the dividend must have been subject to the Wisconsin income tax law for the year preceding the payment of the dividend.

(3) The principal business of the corporation paying the dividend must have been attributable to Wisconsin for the year preceding the payment of the dividend.

If 50 per cent or more of the entire net income or loss of a corporation, after adjustment for income tax purposes, for the year preceding the payment of a dividend, was used in computing the taxable income of such corporation, it will be considered that the principal business of such corporation was attributable to Wisconsin.

Note: Stock dividends do not constitute taxable income. Liquidating dividends do not constitute taxable income until the taxpayer has recovered his cost of the stock so held. Any amounts received in liquidation in excess of the taxpayer's cost constitute taxable income.

4. **Insurance Premiums.** Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries by a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment, and damage to or loss of professional equipment by fire or otherwise. This further includes premiums for various forms of insurance on the building owned and used in connection with the practice, or a fair proportion thereof where the building is also a home. Under professional equipment is to be included an automobile belonging to the physician and used for strictly professional purposes.

5. **Interest Paid.** In general, all interest paid on existing indebtedness is deductible, except interest paid on indebtedness created for the purchase, maintenance, or improvement of property.

Interest paid on indebtedness created to purchase and carry securities the income from which is not subject to tax is not a proper deduction from gross income.

Interest paid on state and federal income taxes is deductible, but interest paid on fines levied for violations of law is not allowable as a deduction.

Interest paid by an individual on indebtedness created for the purpose of acquiring a home is deductible from gross income. Likewise, interest paid by an individual on money borrowed to pay personal debts, such as hospital bills and other family obligations, is considered a proper deduction from gross income.

Interest paid by an individual on money borrowed for the purpose of securing an education is allowable even though other expenses of obtaining such education are not allowable.

6. **Library.** A fair rate of depreciation on the physician's library may be deducted covering wear and tear sustained through use. In determining the rate, however, obsolescence may not be considered since the Wisconsin Income Tax Law does not recognize losses in value due to such causes. The fact that medical books become out of date during the course of ten years cannot be considered in determining the rate of library depreciation. An annual depreciation of 10 per cent of the cost of such library seems reasonable, however.

Costs of subscriptions to scientific medical journals essential to keep the physician abreast with the progress of his profession are deductible.

7. **Losses by fire, etc.** Loss of and damage to a physician's equipment and other property, used by him in connection with carrying on his professional practice, by fire, theft or other cause, not compensated by insurance or otherwise recoverable, may be computed as a business expense, and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent that it has not been made good by repair and cost of repair claimed as a deduction.

Losses on automobiles, aircraft, summer homes, motor boats, furniture, etc., purchased and held for

pleasure are deductible from gross income where sustained because of theft, fire, flood, or other casualty. Losses on property used for both pleasure and practice are deductible only to the extent that such property was used in the practice, unless such losses were sustained through fire, flood, other casualty, or theft when the entire loss is deducted.

8. Medical Conventions. Ordinary and necessary expenses incurred in attending medical conventions of professional scientific societies necessary to enable the physician to carry on his profession, are deductible.

Costs of attending professional conventions must be strictly limited to the necessary cost and expense directly attendant upon such conventions. The type of professional convention here contemplated is confined to such as are, as a general rule, ordinarily and generally attended by persons of the same professional standing as the taxpayer, as necessary to the maintenance and carrying on of their regular practice and profession.

9. Medical Supplies and Instruments (See Federal Digest, 4).

10. Office Expenses (See Federal Digest, 5).

11. Office Rental (See Federal Digest, 6).

12. Professional Dues. Professional dues paid to professional associations to which the physician may belong in the interest of his profession may be deducted.

13. Taxes and Licenses. All taxes and licenses incident to the professional scope of the physician may be deducted. The following taxes would be deductible by any physician:

(1) Real property taxes paid on office owned by him and used by him in his practice.

(2) Personal property taxes paid on his apparatus and equipment.

(3) Wisconsin income taxes and surtaxes paid.

(4) Federal income and profits taxes paid on net income subject to tax under the Wisconsin income tax law are deductible in the year in which actually paid in cash. The portion of a federal surtax paid on dividends from Wisconsin corporations is not allowable for Wisconsin income tax purposes, however.

(5) All license fees incident to his profession.

(6) Automobile licenses on automobiles used exclusively in the practice of his profession. See paragraph (1) supra.

(7) Import or tariff duties and business, license, privilege, excise, and stamp taxes, are deductible if incurred in connection with the carrying on of the taxpayer's practice and profession.

14. Traveling Expenses (See Federal Digest, 9).

15. Wages and Salaries (See Federal Digest, 10).

16. Miscellaneous.

a. Laboratory Expenses (See Federal Digest, 11-c).

b. Legal. Expenses incurred in the defense of a suit for malpractice are deductible as business expense. Expenses incurred in the defense of a criminal action, however, are not deductible.

Legal expenses incurred in connection with the operation of a taxpayer's profession are proper deductions unless such business is conducted in violation of the law. To be deductible, however, such legal expenses must be reported on form 9 or 9a.

c. Sale of Spectacles (See Federal Digest, 11-e.).

d. Unclassified. Payments required to be made for damages growing out of the carrying on of the profession such as injury to property, interference with property rights, breach of contract, and libel are deductible from gross income.

Miscellaneous expenses which are incurred in producing taxable income and are allowable deductions include the following: fees paid to auditors, tax experts, and lawyers in connection with income tax matters, welfare work expense incurred in keeping up the morale in an organization.

(END).

Proceedings of January Council Meeting

1. Call to Order

The Council of the State Medical Society of Wisconsin was called to order at the University Club, in Milwaukee, at 9:35 a. m., Saturday, January 9, 1937, by Chairman Rogers.

2. Roll Call

The roll was called and the Secretary reported the following members of the Council present: Councilors Rogers, President Gavin, Dean, Smith, Pope, Johnson, Duer, Jegi, Butler, Lettenberger, Lambert and Heidner; President-Elect, Dr. James C. Sargent; Treasurer, Dr. Rock Sleyster; Secretary Crownhart and Assistant Secretary Larson. (The Council received a telegram from Dr. Cunningham stating that it would be impossible for him to attend due to illness.)

Others present by invitation of the Chairman of the Council were: Dr. C. A. Harper, State Health Officer; Dr. J. Gurney Taylor, Delegate to the American Medical Association; Dr. Carl Eberbach, Chairman of the Committee on Public Policy and Mr. Theodore Wiprud, Execeutive Secretary, Medical Society of Milwaukee County.

3. Approval of Minutes

Upon the motion of Pope-Smith, the minutes of the last meetings of the Council as published in the December issue of the Wisconsin Medical Journal were approved without correction.

4. Elections

The Secretary called upon President Gavin to preside during the election of a Chairman of the Council.

(a) Moved by Duer-Jegi, that Dr. Arthur W. Rogers, Oconomowoc, succeed himself as Chairman of the Council for the ensuing year. Carried unanimously.

(b) The Secretary. Moved by Duer-Smith that Mr. J. G. Crownhart succeed himself as Secretary of the Society and the Council for the ensuing year. Carried unanimously.

(c) Moved by Pope-Gavin that Dr. Rock Sleyster, Wauwatosa, succeed himself as Treasurer of the Society and Council for the ensuing year. Carried unanimously.

5. The Report of the Treasurer

Dr. Rock Sleyster, Treasurer, presented the following report:

TREASURER'S REPORT

STATE MEDICAL SOCIETY OF WISCONSIN AS AT DECEMBER 31, 1936

	General Fund	Medical Defense Fund
Balance January 1, 1936	$ 4.54	$ 968.46
Receipts:		
Membership dues	$34,367.75	$2,068.00
Interest on investments	1,025.25	430.00
Exhibit space—Annual Meeting	1,890.00	
Bonds matured—American Tel. & Tel. Co.	3,998.60	
Bonds called—Wisconsin Gas & Elec. Co.		1,049.65
Profit on called bonds	197.91	
Refund on Employers Mutual Insurance	6.25	
Wisconsin Hospital Association	150.00	
Committee allowance from Medical Defense Fund	250.00	
Annual Meeting	1,021.90	
Total Receipts	$42,907.66	$3,547.65
Grand Total	$42,912.20	$4,516.11
Disbursements:		
Expenses Sundry*	$42,290.18	$ 157.08
* Includes reinvestment of funds.		
Fees, Ronald A. Dreschler, Attorney		348.99
Fees, Ralph M. Hoyt, Attorney		250.95
Fees, Robert R. Freeman, Attorney		257.34
Fees, Strehlow & Cranston, Attorneys		48.50
Bond purchased		1,038.72
Committee Allowance to General Fund		250.00
Total Disbursements	$42,290.18	$2,351.58
Cash on deposit as at December 31, 1936	$ 622.02	$2,164.53

Summary of Funds

	General Fund	Medical Defense Fund
General Fund:		
Bank Balance December 31, 1936	$ 622.02	
Bonds	20,000.00	
Total	$20,622.02	
Medical Defense Fund:		
Bank Balance December 31, 1936	$ 2,164.53	
Bonds	11,000.00	
Total	$13,164.53	

No bonds purchased for the Society were in default at any time as to principal and interest.

Investment Bonds

General Fund:	*Maturity*	*Rate*	*Par Value*
New York State Elec. & Gas Corp.	3– 1–80	4½%	$ 1,000.00
Canadian National Railway Co.	10– 1–69	5%	2,000.00
Milwaukee Gas Light Co.	3– 1–67	4½%	2,000.00
T. M. E. R. & L. Co.	6– 1–61	5%	2,000.00
Northern States Power	4– 1–41	5%	4,000.00
City of Milwaukee School Bonds	1– 1–37	4½%	1,000.00
Dominion of Canada	1–15–61/56	3¼%	2,000.00
Dominion of Canada	8–15–45	2½%	2,000.00
Wisconsin Public Service Corp.	6– 1–61	4%	3,000.00
Wisconsin Power & Light Co.	6– 1–66	4%	1,000.00
			$20,000.00
Medical Defense Fund:			
Milwaukee County Sewer	3–18–44	4½%	$ 1,000.00
Pacific Tel. & Tel. Co.	1– 2–37	5%	1,000.00
Bell Telephone Co. of Canada	3– 1–55	5%	2,000.00
Commonwealth Edison Co.	7 –1–57	4½%	2,000.00
U. S. Treas. Bonds 1944–46	4–15–46	3¼%	2,000.00
Southern California Edison Co.	5– 1–60	3¾%	2,000.00
Wisconsin Gas & Elec. Co.	4– 1–66	3½%	1,000.00
			$11,000.00

Upon motion by Smith–Gavin, the Council unanimously accepted the report of the Treasurer.

6. Report of the Secretary

The Secretary reported to the Council on the following:

(a) Financial report of the Wisconsin Medical Journal.

(b) The postgraduate professional education made available to physicians in Wisconsin during 1936.

(c) Anticipated legislative proposals.

(d) Increase in the activities of committees of the State Society. The Secretary reported that during the past year over fifty meetings of committees were held.

Upon motion of Gavin–Dean, the report of the Secretary was accepted.

At this point it was moved by Johnson–Pope that a telegram be sent to Dr. Wilson Cunningham, Platteville, Councilor, advising him of their sincere wishes for a speedy recovery.

7. The Budget

The Secretary presented the following report from the Executive Committee of the Council:

The Executive Committee of the Council met in Milwaukee on Sunday, December 6, for a preliminary consideration of the items to be included in the 1937 budget of the Society.

During 1936 the membership of the Society reached 2,300. This is the highest membership roll in the history of the Society. Based on a like membership of the Society during 1937, the Secretary reported that an anticipated income of $34,500 would be received through membership dues. Interest on invested surplus amounts to approximately $800 per year and is included in the general fund. Honorarium to the Secretary from the Wisconsin Hospital Association, $150, is placed in the general fund, thus making a total anticipated income of $35,450.

Based upon the anticipated revenue for 1937 the Executive Committee of the Council recommended the adoption of the following budget for 1937:

Salaries:	
Executive Salaries:	
J. G. Crownhart	$ 7,800
G. B. Larson	2,700
G. H. Schroeder	300
Secretarial and Stenographic Salaries	6,720
Rent	1,140
Office	3,600
Press and Radio	750
Wisconsin Medical Journal	2,100
Annual Meeting	1,500
Hygeia	250
Delegates to A. M. A.	250
Legal	900
Committee on Public Policy	3,600
President's Expense	500
Council and Committees	1,500
Insurance—J. G. Crownhart	250

It was moved by Gavin–Lambert that J. G. Crownhart receive his present salary of $7,800 from the general fund (to which $1,200 is added from the Wisconsin Medical Journal account).

On motion of Duer–Dean, the salary of G. B. Larson, Assistant Secretary, was placed at $2,700.

After discussion of each item, on motion of Smith–Pope, the budget as a whole was accepted as recommended by the Executive Committee of the Council.

8. Approval of Mail Ballots

The Council, on motion of Duer–Lambert, confirmed unanimously the following mail ballots:

(a) Granting an additional appropriation of $750 for travel in 1936.

(b) Nominating for representation of the Society on the Committee on Nursing Education (one to be selected by the State Board of Health): Dr. Millard Tufts, Milwaukee; Dr. E. H. Pawsat, Fond du Lac; Dr. J. A. Evans, La Crosse; Dr. O. A. Fiedler, Sheboygan; and Dr. W. G. Sexton, Marshfield.

(c) Confirmation of the restatement of the position of the Council in regard to honorariums paid to members of the State Medical Society of Wisconsin appearing on scientific programs of the Society or any of its constituent societies.

9. Life Membership

On recommendation of the Medical Society of Milwaukee County, the Secretary placed before the Council the following names for life membership:

(a) Lewis G. Nolte
(b) Wm. P. Jobse
(c) Robert G. Sayle

On motion of Pope–Johnson, the Council granted life membership to each of the above nominees.

10. Milwaukee Experiment

The Secretary reported to the Council the progress made by the Medical Society of Milwaukee County in the establishment of the budgetary service to members of the Medical Society of Milwaukee County and their patients.

11. The Women's Field Army

The Secretary suggested that the service of the Secretary's office be offered to the Women's Field Army to the end that their organization work may go forward and not be hampered by lack of initial necessary secretarial services. Moved by Pope–Heidner that the suggestion be approved. Carried unanimously.

12. Further Appropriation

The President, Secretary, and Treasurer discussed in detail with the Council the necessity of appropriating $5,000 from the surplus. Following full discussion, it was moved by Smith–Pope that $5,000 be appropriated from the surplus and placed in the general fund, to be disbursed at the discretion of the Secretary and Treasurer.

13. Council Awards

The Secretary called attention to the members of the Council that nominations were in order for recommendations for the Council awards, based upon (1) service in professional practice (2) service to organized medicine (3) service to the public.

14. Theresa Limberg Rogers Memorial Lecture

The Secretary placed before the Council the following communication from Dr. W. S. Middleton, Chairman of the Council on Scientific Work of the State Society and a Director of Rogers Memorial Sanitarium, Oconomowoc:

"At the last meeting of the Board of Trustees of the Rogers Memorial Sanitarium, it was voted to offer to the State Medical Society a Theresa Limberg Rogers Memorial Lecture. This lectureship is to be supported by the funds of

the Rogers Memorial Sanitarium and is a part of the educational program that the Board has evolved.

"The Beers Lecture in Milwaukee was such a success, that it was deemed advisable to extend the effort to the profession of the State in bringing some outstanding psychiatrist to our state meeting occasionally or regularly at such intervals as may be decided upon. The message of such a lecturer would of necessity be designed to stress the psychiatric problems of the general practitioner, and for that reason the speakers would, of necessity, be chosen with the greatest of care. The minutes of our meeting read that the nominee and his topic would be subject to the action of the Council on Scientific Work of the State Medical Society.

"Before bringing this very generous and forward-looking offer to our Council on Scientific Work, I felt that an authorization for the acceptance of this proffered help even though it were of a peculiarly educational order, should come from the Council of the State Medical Society.

"Accordingly before taking further steps I would appreciate the decision of the Council in this matter."

It was moved by Pope–Jegi that the Council accept the offer for a Theresa Limberg Rogers Memorial Lecture. Carried unanimously.

15. Safe Files

The Secretary reported to the Council that during the last several years valuable information has been collected in the office of the State Society. This information is irreplaceable and is exceedingly valuable to the Secretary and the Society in the discharge of their work. The Secretary recommended to the Council that permission be granted to the Secretary to purchase at periodic intervals fire-resistant files for the office.

Moved by Heidner–Butler that the Secretary be granted permission to purchase from time to time, eight 4-drawer, fire-resistant safe files. Carried unanimously.

16. Appointments of the Chairman

(a) *Executive Committee of the Council.* The Chair announced that the Executive Committee of the Council was composed, by rule, of the Chairman, Secretary, Treasurer, and two Councilors. The Chair appointed Dr. J. W. Lambert, Antigo, and Dr. A. H. Heidner, West Bend, as members of the Executive Committee of the Council. President Gavin, Chairman Rogers, Treasurer Sleyster, and Secretary Crownhart are holdover members of the Executive Committee of the Council, by reason of their offices.

(b) *Advisory Committee to Auxiliary.* The Chair announced the reappointment of Dr. Rock Sleyster, 1939, and Dr. A. W. Rogers, 1940, to the Advisory Committee to the Auxiliary. Dr. F. W. Pope is a holdover member of this committee with term expiring in 1938.

(c) *Auditing Committee.* The Chair reappointed Dr. F. W. Pope, Racine, Dr. J. F. Smith, Wausau, and Dr. G. R. Duer, Marinette, to the Auditing Committee for 1937.

(d) *Special Committees.*

(1) Advisory Committee on Care of Crippled Children. The Chair reappointed the entire Committee composed of J. W. Powers, Milwaukee, Chairman; A. T. Nadeau, Marinette; C. M. Kurtz, Madison; and H. Kent Tenney, Madison.

(2) *Subcommittee on Cardiac Conditions.* The Chairman reappointed John Huston, Milwaukee, Chairman; M. F. Rogers, Milwaukee; L. M. Warfield, Milwaukee; C. M. Kurtz, Madison; and the Secretary.

(3) *Committee on Goiter.* The Chairman of the Council reappointed the members of the Committee on Goiter consisting of A. S. Jackson, Madison, Chairman; R. S. Cron, Milwaukee; and R. E. Burns, Madison.

(4) *Advisory Committee to the Wisconsin Inter-Scholastic Athletic Association.* The Chairman reappointed the following members of the Society to this Advisory Committee: O. R. Lillie, Milwaukee, Chairman; R. S. Cron, Milwaukee, and R. E. Burns, Madison.

(5) The Chairman of the Council withheld appointment of a Committee to consider a memorial for the birthplace of John B. Murphy. The appointment of this Committee will be made at a subsequent date.

17. Advisory Committee to Department of Public Instruction

The State Superintendent of Public Instruction, Mr. John Callahan, in a letter to the Secretary of the Society asked that the Society appoint an Advisory Committee to cooperate with the State Department of Public Instruction in the development of more adequate provisions for the physical and educational rehabilitation of the deaf and hard-of-hearing and those with defective vision.

It was moved by Smith–Johnson that the Chair appoint a committee of three to cooperate with the State Department of Public Instruction. The members of this Committee are to be selected from those who have limited their practice to eye, ear, nose and throat, and are to be selected from widely separated geographical areas in the State. The motion was carried unanimously.

18. The Journal

The Secretary reported to the Council that the Medical Editor of the Journal desired clarification of the duties of the Medical Editor. As this question had not been before the Editorial Board, it was moved by Pope–Heidner that it be referred to the Editorial Board; the Editorial Board to report to the Council with specific recommendations. Carried unanimously.

19. Public Education

The Committee on Health and Public Instruction reported to the Council on the subject of statement enclosures containing health information. The question of health inserts had been referred by the Council to the Committee on Health and Public Instruction.

Motion made by Heidner–Lambert that the Committee on Health and Public Instruction in conjunction with the Secretary's office be authorized to perfect the sample health inserts already prepared and proceed with distribution of the pamphlets together with an explanatory bulletin to the members of the Society. Motion carried unanimously.

20. Attendance

The Secretary advised the Council that he desired clarification of those whom the Council wished to have in attendance by invitation.

The Council advised the Secretary that the following were to receive an invitation to attend meetings of the Council:

(a) State Health Officer.

(b) Chairman of the Committee on Public Policy.

(c) Chairman of the Committee on Medical Economics.

(d) Delegates to the American Medical Association.

(e) Vice-speaker of the House of Delegates in the event that the Speaker advises the Secretary of his inability to attend.

(f) Chairman of the Editorial Board.

(g) Secretary, Medical Society of Milwaukee County.

The Chairman, with unanimous consent of the Council, announced that the Council would proceed into an executive session at 3:00 p. m. at all subsequent meetings of the Council.

21. Hospital Insurance

The Council directed the Secretary to prepare for distribution to the members, a bulletin on the subject of group hospital insurance.

The Council advised the Secretary that no alteration has been made in the position of the Council in regard to prepayment hospital plans or group hospitalization.

22. Hospital Licensure

The question of hospital licensure was discussed by the Council. The Council recommended a further study of this question with the immediate suggestion that hospitals be required to report to the State Board of Health concerning admissions, discharges, and the number of deaths. In discussing this question further, the Council considered the advisability of recommending to the Medical Grievance Committee the possibility of securing an amendment to the powers granted the Medical Grievance Committee to the end that this Committee be given supervision over the practices of hospitals.

23. Adjournment

The Council adjourned at 4:15 p. m.

Rosenwald Fund Subsidizes New "Consultant Services" in Field of Sickness Care

IN COMPANION news releases given out on November 16 and January 23, the Julius Rosenwald Fund of Chicago has announced grants totaling $265,000 for the promotion of voluntary hospital insurance and the creation of a new committee to conduct and assist studies in the economic and social aspects of medical care.

The first grant is one of $100,000 in which Mr. C. Rufus Rorem, a staff member of the Fund, becomes executive director of a special committee to promote voluntary hospital insurance of the American Hospital Association.

The second grant of $165,000 is to a "Committee on Research in Medical Economics" newly incorporated in New York, with a second staff member, Mr. Michael M. Davis, as chairman.

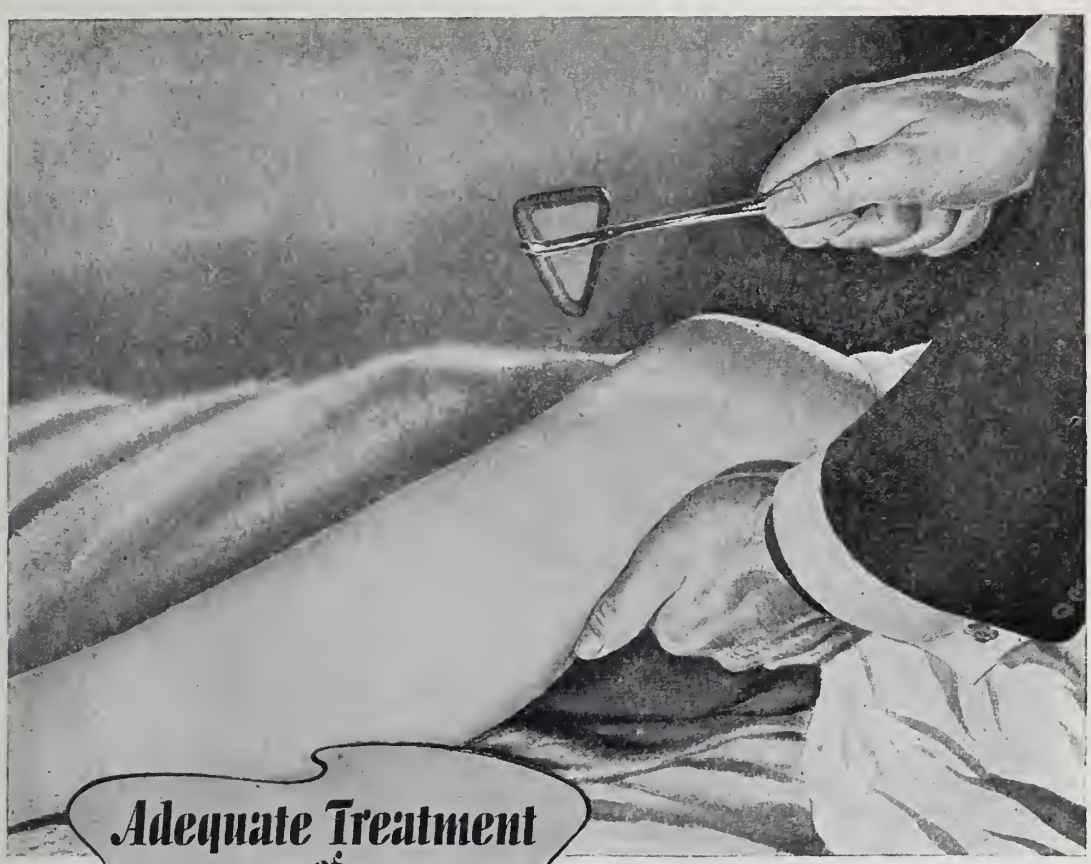
The companion news releases are reproduced herewith.

January 23, 1937

The Julius Rosenwald Fund has made a grant of $165,000 over a five-year period, to the Committee on Research in Medical Economics, it was announced yesterday by Edwin R. Embree, president of the Fund. This committee has recently been incorporated in New York, with Michael M. Davis as chairman, the other members being Robert E. Chaddock,

November 16, 1936

A gift of $100,000 to the American Hospital Association for the study and development of voluntary hospital insurance was announced by Edwin R. Embree, president of the Julius Rosenwald Fund, at the annual meeting of the Fund recently held in Chicago. This plan, known as group hospitalization, enables persons of moderate means to secure hospi-



Adequate Treatment of Pernicious Anemia

● Of paramount importance in the treatment of pernicious anemia is the administration of adequate antianemic material, such as is contained in liver, to restore hemoglobin and red blood cell levels.

In cases where there is evidence that subacute combined degeneration of the spinal cord is present, therapy must be adequate to arrest completely all progress of the cord degeneration. Adequate doses of solutions of liver extract can be conveniently given by parenteral injection.

For this purpose the following preparations are offered:

Solution Liver Extract Concentrated, Lilly—Supplied in 10-cc. rubber-stoppered ampoules and in packages of four 3-cc. rubber-stoppered ampoules.

Solution Liver Extract, Lilly—Supplied in 10-cc. rubber-stoppered ampoules.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

January 23 (Continued)

professor of statistics, Columbia University; Henry S. Dennison, president, Dennison Manufacturing Company, Framingham, Mass.; Walton H. Hamilton, professor of law, Yale University, and director, Bureau of Research, Social Security Board, Washington; Elvin S. Johnson, director, New School for Social Research, New York; Paul U. Kellogg, editor, The Survey Graphic, New York; Harry A. Millis, professor of economics, University of Chicago; and Fred M. Stein, retired banker, New York.

The committee will have an advisory board, to be enlarged as required, the following physicians now being members: Samuel Bradbury, M. D., Philadelphia; Alfred E. Cohn, M. D., New York; Alice Hamilton, M. D., Washington; Ludwig Hektoen, M. D., Chicago; and Franklin C. McLean, M. D., Chicago.

This committee will conduct and assist studies in the economic and social aspects of medical care; will train personnel for this field; and, in cooperation with the medical profession and other agencies, will furnish information and consultation services in behalf of rendering medical care more widely available to the people at costs within their means. The committee will have headquarters in New York City.

Since 1928, Mr. Embree stated, "the Julius Rosenwald Fund has been actively at work with the aim of reducing the costs of medical services and of making them more accessible to people of small incomes. Now the organized medical profession, hospitals, and many industrial and governmental agencies are engaged in practical experiments in different parts of the country, organizing medical care to reduce costs or developing methods of getting these costs into the family budget.

"Hence there is now less need for the promotion of action than for the guidance of action through scientific and dispassionate studies. The Fund therefore welcomes the opportunity to make a grant of this kind to a committee of social scientists and businessmen, with a distinguished medical advisory board. With this grant, together with the grant of $100,000 recently made to the American Hospital Association to promote voluntary hospital insurance, the Trustees have terminated their department of medical services, believing that these two agencies will now carry forward vigorously the Fund's long-standing and successful work in this field."

Michael M. Davis, who is chairman and the active director of the new committee has been, since 1928, the director of the Fund's department of medical services. He has been associated for many years with work in medical economics and with hospitals and clinics in New York, Boston, and Chicago, is the author of a number of books and many articles, chairman of the council of the American Hospital Association, and active in numerous national public health and welfare agencies.

November 16 (Continued)

tal care by payments of from $6 to $12 per year without recourse to charity.

The program of the American Hospital Association will be carried forward through a special Committee on Hospital Service of which C. Rufus Rorem of Chicago becomes executive director. The chairman of the committee is Dr. Basil C. MacLean of Rochester, New York, and other members are Dr. R. C. Buerki, Madison, Wisconsin (Editor's Note—Appointment by reason of position as immediate past president); Dr. S. S. Goldwater, New York City; Mgr. Maurice F. Griffin, Cleveland, Ohio, and Dr. Claude W. Munger, president of the American Hospital Association.

The work of the Committee on Hospital Service includes two phases: first, advice and consultation to existing plans and those being formed concerning actuarial data, benefits, method of organization, public relations, and annual subscription rates; second, relations of hospital service plans to the medical profession, public welfare activities, state departments of insurance, private insurance companies, hospital administration, and hospital accounting. This program is a continuation of the activities of the American Hospital Association since 1933.

Dr. Rorem, who is a certified public accountant, was formerly associate professor at the University of Chicago and is the author of a university text in accounting as well as several volumes dealing with the economic and financial aspects of hospital and medical care. Since 1931 he has been associate director for medical services of the Julius Rosenwald Fund and since 1933 has been consultant in group hospitalization to the American Hospital Association.

Enrollment in group hospitalization plans is now approaching one half million employed subscribers and dependents with more than 150,000 participating in the three-cents-a-day plan for hospital care in New York City. Plans which have enrolled more than 25,000 employed persons are those in Rochester, New York; Cleveland, Ohio; Washington, D. C.; Minneapolis and St. Paul, Minnesota; and Dallas, Texas. Other plans with 5,000 or more subscribers and dependents are those in New Orleans, Syracuse, St. Louis, San Antonio, Houston, Memphis, Sacramento, Newark, Charleston and Bluefield, West Virginia, Kingsport, Tennessee, and a state-wide plan for North Carolina. Non-profit city-wide hospital service plans have been established or are being organized at the present time in Chicago, Buffalo, Albany, Louisville, New Haven, and Boston.

INSULIN SHOCK THERAPY

(Continued from page 111)

in 1933 to Dr. Manfred Sakel, Vienna, Austria, that hypoglycemia and shocks induced by insulin should benefit agitated mental cases and especially schizophrenics. Insulin

A VETERAN'S BIRTHDAY...

Five years ago Abbott and a cooperating laboratory offered Haliver Oil with Viosterol to the physician. It was born of original research at a time when much uncertainty surrounded the potency of many of the vitamin products on the market. Thereafter the physician could prescribe Abbott's Haliver Oil with complete assurance that his patients would get all those vitamins he intended them to have. And he did, after Abbott's ethical promotion presented him with the facts.

Today the story is unchanged. (Today, too, it is no secret that deficient vitamin products are still offered for sale.) Abbott goes direct to the source in the North Pacific and assumes complete control of production. No outside factor beclouds certainty of quality of our haliver products. After the fish are caught their freshly extracted livers are packed in ice and salt and rushed to our modern refinery in Seattle for preliminary assaying. Only fish oils of the highest quality are used.

Full vitamin potency is proved by rigid bioassays conducted in a fully equipped, completely modern laboratory under conditions making for the utmost scientific accuracy. All label claims for vitamin content are based solely upon the bioassay results, but as additional checks to accuracy, both colorimetric and spectroscopic assays are applied to each lot at Abbott Laboratories.

Prescribe Abbott's Haliver Oil with Viosterol routinely for lactating or expectant mothers, and all other patients who require additional Vitamins A and D. Available at prescription pharmacies in soft, tasteless capsules in boxes of 25, 50, 100 and 250. They are also available in 10-cc. and 50-cc. vials with special droppers. Abbott Laboratories, North Chicago, Ill.

ABBOTT'S HALIVER OIL

WITH VIOSTEROL

ABBOTT LABORATORIES 1 2-37
North Chicago, Ill.

Send me FREE samples of Abbott's Haliver Oil with Viosterol capsules.

_____ M. D.

Address _____

City _____ State _____

has been and is used not only in diabetes mellitus, but also to combat loss of appetite, to bring forth gain in weight, to induce hunger in the negativistic, food-refusing patients. In these conditions, we create an appetite by suppressing the blood sugar, but hypoglycemia or hypoglycemic shocks would be unwarranted and dangerous signs. Sakel's new therapy of schizophrenia creates, by large doses of insulin, intentionally conditions of hypoglycemia with the goal to induce prolonged states of insulin shocks.

The therapy is today beyond the trial period. The results obtained on an already large scale in Europe warrant its application in suitable cases, which must be carefully supervised in a well-organized "insulin ward."

Although the methods of treatment (days and amounts of insulin) are not uniform, a general review of the procedure can be given by referring briefly to Sakel's phasic schedule.

Phase I, a preparatory period, acquaints the physician with the individual's reactivity or sensitivity to insulin. After the fasting blood sugar has been determined, the patient gets twenty units of insulin early in the morning, and is observed for four hours (signs and blood sugar levels); the amount of insulin is increased by ten to twenty units daily with accurate recordings of symptoms, signs, and blood sugar levels. The duration of phase I, i.e., amount of insulin necessary, varies greatly before a definite hypoglycemia is obtained in the patient. After six to fourteen days, a marked hypoglycemic status is established, ushering in phase II. This second or shock phase is maintained as long as mental manifestations necessitate shocks induced by the same amount of insulin originally determined in phase I.

The insulin shock, ushered in usually by very profuse perspiration with fatigue, progressing to somnolence, stupor, and coma is the desired "wet shock." Sometimes patients become restless and agitated during the early stages of phase II because of extreme hunger (Hunger-Krawall), thirst, or of a feeling of impending death. The patient can be aroused while somnolent, and presents no abnormal clinical findings except for an increase in the pulse rate. The various depths of coma are accompanied by hyporeflexia, areflexia, sometimes pathological pyramidal signs; by atonia, hypertonicity of the muscles, with tremors and twitchings; by alteration in pulse (bradycardia), respiration (slow to Cheyne–Stokes' type), blood pressure (low systolic), and by marked salivation.

Instead of the common "wet shock," some individuals, though rare, react with a "dry shock," i.e., no profuse perspiration precedes the somnolent-coma phase. These patients respond even to relatively small doses of insulin. Clammy skin, pallor, stupor, tonic stretch phenomena predict with regularity an imminent epileptic convulsion. Consulsions may occur also after a prolonged wet shock, but they are rare. The phase II is terminated promptly (wet shock after several hours, dry shock immediately) by intravenous glucose followed by oral sugar water administration as soon as the patient is awake. The second phase, which in all probability reorganizes psychic pattern dissociation and abnormal reactive manifestations, is followed by phases III and IV. Variations of phase II, inductions of prehypoglycemia with smaller amounts of insulin to taper off the treatment and "to stabilize and organize the mental picture" make up these phases.

The insulin therapy necessitates a very close and careful supervision by a physician. Individual considerations are of the utmost importance, i.e., insulin reactivity dosage, shock phenomena, duration of shock phases, methods of termination, emergency interference upon epileptiform convulsions, or cardiovascular, respiratory, salivatory, and gastric disturbances.

Mortality is 1.3 per cent according to the literature. No complications have been observed by us in ten cases who have been under treatment now for three months.

A resume of the results of European investigators is very encouraging. Two thirds of the early cases (symptomatic manifestations only to one half year) have been capable of resuming work again now over periods

–for the good things smoking can give you

Copyright 1937, Liggett & Myers Tobacco Co.

lasting from one half to two years (Sakel and Dussek—70 per cent complete remissions, 18 per cent social remissions); but only one third of the more advanced cases have been restored sufficiently to earn a livelihood. The insulin remission of schizophrenia differs greatly from the spontaneous one (10–20 per cent). The quality of the obtained insulin remission measured on timely transference of affectivity, on the restoration of normal contacts, on the spontaneous productivity, and on the return to former interests is better, more impressive, and appears more profound.

The experience gained and the data accumulated to the present time in the Wisconsin Psychiatric Institute do not permit any definite deductions. Three cases of hebephrenic type of schizophrenia have been discharged after two months of insulin therapy. I hope sincerely that these lines of information and orientation will arouse interest in the early recognition and treatment of schizophrenia. Organized cooperation between the state authorities and the medical profession should result in the creation of a commission for the care and treatment of schizophrenia in Wisconsin.

The Journal Bookshelf

BOOKS RECEIVED FOR REVIEW

The Management of Obstetric Difficulties. By Paul Titus, M. D., obstetrician and gynecologist to the St. Margaret Memorial Hospital, Pittsburgh; secretary of the American board of obstetrics and gynecology. St. Louis: The C. V. Mosby Company, 1937. Price $8.50.

Dietetics for the Clinician. By Milton Arlanden Bridges, M. D., director of medicine, Detention, Rikers Island and West Side Hospitals, New York; consulting physician, Seaview Hospital, Staten Island, New York; and department of education, New York University, New York. Third edition, thoroughly revised. Philadelphia: Lea & Febiger, 1937. Price $10.00.

Physical Diagnosis. By Ralph H. Major, M. D., professor of medicine, University of Kansas. Philadelphia: W. B. Saunders Company, 1937. Cloth, $5.00.

Physical Therapeutic Methods in Otolaryngology. By Abraham R. Hollender, M. D., associate in laryngology, rhinology, and otology, University of Illinois College of Medicine. St. Louis: The C. V. Mosby Company, 1937. Price $5.00.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

The 1936 Year Book of General Surgery. Edited by Evarts A. Graham, M. D., professor of surgery, Washington University School of Medicine, St. Louis. Chicago: The Year Book Publishers. Price $3.00.

The Year Book of General Surgery for 1936 is, as usual, a most comprehensive review of the entire field of general surgery. In many instances it has been necessary to shorten the discussion of certain new methods because of the limited space. This, however, is not a criticism of the volume since there is an extensive bibliography. It is a volume which certainly should be in the hands of every general surgeon. J. W. G.

Textbook of Medicine. By Charles Phillips Emerson, M. D., research professor of medicine, Indiana University. Philadelphia: J. B. Lippincott Company. Price $8.00.

Dr. Charles Phillips Emerson, professor of medicine and dean, Indiana University School of Medicine, is a prolific writer in various medical fields. In the past he has written "Clinical Diagnosis," a textbook of clinical microscopy and clinical chemistry; "Essentials of Medicine," a textbook for nurses; "Physical Diagnosis," a detailed textbook in this field, and "The Nervous Patient" which discusses neuropsychiatric conditions from the point of view of the internist. His latest contribution is a 1,296 page "Textbook of Medicine." Dr. Emerson points out in the preface that the book offers several rather unique features. His plan is to present internal medicine in terms of the clinical pictures of diseases and to explain these by the findings of pathology, biochemistry and other preclinical sciences, rather than to emphasize the latter, mentioning symptoms as consequences of disturbances in these fields. To stress this, the contributions of the preclinical sciences are added in special paragraphs and footnotes. An unfortunate aspect of this arrangement lies in the fact that these portions are printed in small type, which is rather unpleasant to the eyes, especially as the paper is so thin that the words on the opposite side of the page are also partially visible. A commendable feature of the book, especially for medical students, is the inclusion of short biographies of a few of the men who have made outstanding contributions in internal medicine. M. L. C.

When Dealing With Cancer

consider the utility, accessibility, and

LOW COST OF RADIUM THERAPY

RADIUM THERAPY is of Particular Value in Carcinoma of Cervix Breast Lip Tongue Bladder Rectum Prostate • Epithelioma Uterine Bleeding and Fibroids

Our rental plan gives you an adequate radium supply, quickly available, with every requirement for approved technique—new platinum filters—all dosage range in tubes and needles. All applicators are prepared under competent medical and technical supervision. Special delivery express service.

Typical Rates

Actual time of use	50 milligrams	75 milligrams	100 milligrams
36 hours or less	$10.00	$14.50	$19.00
48 hours	13.00	19.00	25.00
72 hours	19.00	28.00	37.00
96 hours	25.00	37.00	49.00

RADON, in ALL-GOLD implants, $2.50 per millicurie

Telephone Randolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building 25 E. Washington St.

CHICAGO, ILL.

Behind

MERCUROCHROME

(dibrom-oxymercuri-fluorescein-sodium)

is a background of

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.

BALTIMORE, MARYLAND

PROFESSIONAL PROTECTION

A DOCTOR SAYS:—

"No company could do more to protect the practice of its assured and also relieve him of the worry and inconvenience involved in such a claim."

THE

MEDICAL PROTECTIVE COMPANY

OF FORT WAYNE, INDIANA

WHEATON, ILLINOIS

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE OR RENT—Good general practice. Modern home with fully equipped offices in Cameron (population 900); excellent hospital facilities within fifteen-minute drive. Splendid opportunity for married physician; reasonable if taken at once. Reason for sale: Have been offered an advanced position. Address replies to Room 16, 111 South Hamilton Street, Madison.

FOR SALE—McIntosh diathermy, good as new. Cost with connections, etc., about $350. Price now $150.

McIntosh wall plate, good as new. Cost about $250 with hair depilatory outfit, etc. Price now $75.

McKesson gas machine, good as new except rubber connections. Large size. Cost about $325 with connections for oral surgery, etc. Price now $125.

Real bargains; must be cash. Address replies to Dr. Robert L. Fenton, Baraboo, Wisconsin.

FOR SALE—X-ray developing tank, tile construction; dimensions sufficient to develop up to size 14 by 17 films. Capactiy sufficient for small hospital or large office. Will sell cheap. Address replies to No. 55 in care of the Journal.

FOR SALE—Physician's instruments and General Electric high frequency diathermy and surgical diathermy machine; also a Keystone Telebinocular. Address replies to No. 47 in care of the Journal.

FOR SALE OR RENT — Good country general practice with modern home near Madison. Address replies to No. 51 in care of Journal.

FOR SALE—Eye, ear, nose, and throat instruments. The complete set of instruments of the late Dr. G. I. Hogue are for sale. Address replies to Mrs. G. I. Hogue, 1030 North Marshall Street, Milwaukee.

WANTED—Laboratory technician to assist in doctor's office. Write The Milwaukee Medical Times, 753 Bankers' Building, Milwaukee.

WANTED—Assistant by eye, ear, nose, and throat man. Experience not necessary but would help. Catholic preferred. Send complete personal and professional record in first letter. Address replies to No. 56 in care of the Journal.

WANTED—Partner by a physician, thirty years established and doing a large surgical and medical practice. Located in south central part of Wisconsin. A beautiful up-to-date city of 25,000. Excellent hospital, schools, and churches of all denominations.

The applicant must be strictly ethical, not afraid to work, and must be able to do general surgery. If not up-to-date in surgery, will allow him to take three to six months' postgraduate work.

One thousand dollars buys half interest in office equipment. Will turn over to partner half of all book accounts at face value. Reason for selling: Work has become too heavy. This is an unusual opportunity. Must have cash and be able to furnish references. Address No. 50 care of the Journal.

LOCUM TENENS—Experienced physician would like locum tenens work for a short or long period; licensed in Wisconsin; references furnished; will not compete. Address replies to No. 54 in care of the Journal.

ASSISTANT WANTED: An excellent opportunity to assist a well-established general practitioner in a city of 1,000. Lutheran preferred. Should be able to talk German. No cash required. Opportunity to take over eventually entire practice as present physician is absent over protracted periods. Office and living quarters in same building if desired. Full details can be secured by writing No. 57, care of Journal.

LOCATION—Good opening for physician in town of 350 population with surrounding territory of at least 1,500. Hospital facilities within eighteen miles; good high school; fifty miles south of St. Paul on Burlington Railroad. Address replies to Mr. Milton A. Michaels, Maiden Rock, Wisconsin.

LOCATION—Splendid opportunity for Wisconsin registered eye, ear, nose, and throat man. Position open immediately in Milwaukee. Address Dr. V. A. Chapman, El Paseo Building, Palm Springs, California.

Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

FORTIER and FORTIER
X-RAY LABORATORY

Deep Therapy, 200,000 Volts
Superficial Therapy
Roentgen Diagnosis

Radiographic Examinations made at beside in residence if desired.

709-710 MAJESTIC BUILDING
MILWAUKEE

Office — Marquette 5150-5151
Residence — Edgewood 0420

CONSERVATION OF ESSENTIAL ELEMENTS IN PROTECTIVE FOODS

II. THE VITAMINS

● Refinement of vitamin assay methods has made practical many quantitative studies which had hitherto been impossible. Employment of these methods has yielded evidence which indicates that many factors may influence the vitamin content of foods which come to the table; in particular, the fruits and vegetables. Variety, maturity, time and temperature of storage after harvesting, and method of preparation, all have been found to affect the ultimate vitamin content of common foods. Several examples of the extent to which certain of these factors operate might well be given.

It has been shown that spinach slowly loses its vitamin C potency even in low temperature storage; at room temperature, one-half of the vitamin C is lost in three days; practically all antiscorbutic potency disappears in seven days (1).

Another report indicates a loss in vitamin C of 78 per cent in spinach stored two days at room temperature and 80 per cent loss in asparagus tips during four days' storage (2).

The vitamin C content of apples is markedly reduced during cold storage: 20 per cent in 4 to 6 months and about 40 per cent in 8 to 10 months (3).

Vitamin A in apples is, however, subject to less destruction than vitamin C during prolonged storage (4).

Prolonged cold storage of pears may result in a loss in the vitamin A and vitamin C content of nearly 50 per cent (5).

Further, solution losses which may occur during cooking vary with the individual product and with the method used in cooking. From 40 to 48 per cent of vitamin C may be lost to the water in which peas are cooked (6).

Vitamin C losses in 12 different vegetables have been reported to vary from 12 per cent in asparagus to 80 per cent in white onions (7).

These data demonstrate the seriousness of solution losses of vitamin C. It is considered probable that other water soluble vitamins are affected in a similar way.

Thus, by the time fruits and vegetables spend some days in transit or storage before reaching the kitchen and are cooked by the usual home method, much of the original vitamin content may have been lost. Little can be done to prevent storage losses when fresh fruits and vegetables are not available from the home garden, but solution losses may in part be overcome by using the cooking water.

Fortunately, in the commercial canning procedure, products are harvested at the optimum stage of maturity and canned immediately, using only a limited quantity of water which is retained in the can. As a result, storage losses of the vitamins are reduced (8), and solution losses may be eliminated by the use of the liquid in which the food is canned.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) 1936. Food Research 1, 1.
(2) 1936. J. Soc. Chem. Ind. 55, 153T.
(3) 1933. J. Agr. Res. 46, 1039.
(4) 1936. Food Research 1, 121.
(5) 1934. J. Am. Diet. Assn. 10, 217.
(6) 1936. J. Nutrition 12, 285.
(7) 1936. J. Home Econ. 28, 15.
(8) a. 1921. Proc. Soc. Exp. Biol. Med. 18, 164
b. 1928. Ind. Eng. Chem. 20, 202
c. 1929. Ibid. 21, 347
d. 1932. J. Home Econ. 24, 826

This is the twenty-first in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. COUNCIL ON FOODS

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

MADISON HEADQUARTERS

State Medical Society of Wisconsin
Annual Meeting, Sept. 8, 9, 10, 11, 1936.

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers · Printers

BLIED

114 E. Washington Ave. Madison, Wis.

NORMANDALE

for

Neuropsychiatric Cases

An institution for the treatment of functional and organic disturbances of the central nervous system, including psychoses.
For further information address:

Dr. I. B. Shulak, Supt.
NORMANDALE
Madison, Wisconsin

WHEN IN MADISON

Visit Your State Offices

Room 305, Washington Building

one block from the Capitol

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS Phone—Wheaton 66
90 Geneva Road

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S

770 North Water St. Phone Daly 1461
MILWAUKEE, WIS.

Kenilworth Sanitarium

KENILWORTH, ILLINOIS
(Northern Suburb of Chicago)

Founded by Sanger Brown, M. D., 1905

Built and equipped for treatment of mental and nervous diseases. Over ten acres of well parked and landscaped grounds. Supervised occupational and recreational activities.

JAMES M. ROBBINS, M.D., Medical Director
CHRISTY BROWN, Business Manager
PETER BASSOE, M.D., Consulting Physician

All correspondence should be addressed to Kenilworth Sanitarium, Kenilworth, Ill.

16,000 ethical practitioners

Since 1902

carry more than 47,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,400,000 Assets

Send for application for membership in these purely professional Associations

Since 1912

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

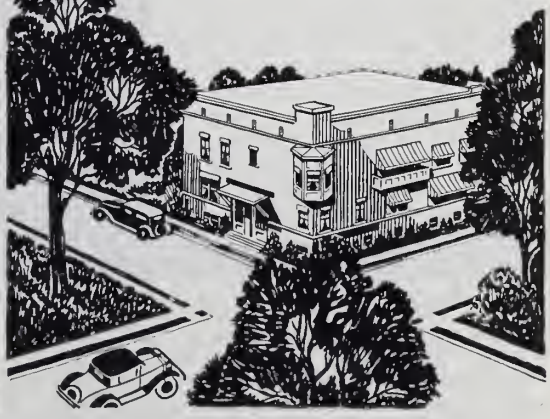
PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

DR. LYNCH'S SANATORIUM

..... FOR DIABETES, BRIGHT'S DISEASE, AND HIGH BLOOD PRESSURE...AND ALL DISEASES of NUTRITION

A cheerful, homelike institution, located in one of Milwaukee's finest residential districts. Fully equipped and staffed for modern treatment of all Nutritional Diseases. More than twenty years of successful experience commend it to physician and patient alike. Write for rates.

PHONE LAKESIDE 0747
2530-32 E. BRADFORD AVE.
MILWAUKEE, WISCONSIN



How Much Sun Does the Infant Really Get?

Not very much: (1) When the baby is bundled to protect against weather or (2) when shaded to protect against glare or (3) when the sun does not shine for days at a time. Oleum Percomorphum offers protection against rickets 365¼ days in the year, in measurable potency and in controllable dosage. ***Use the sun, too.***

Oleum Percomorphum Price Substantially Reduced, Sept. 1, 1936!

We are hopeful that by the medical profession's continued whole-hearted acceptance of Oleum Percomorphum, liquid and capsules (also Mead's Cod Liver Oil Fortified With Percomorph Liver Oil), it will be possible for us to make the patient's "vitamin nickel" (A and D) stretch still further.

Mead Johnson & Company, Evansville, Indiana, U. S. A., does not advertise any of its products to the public.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements

The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course

The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission

A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction

The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities

Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

STEPHEN E. GAVIN, Fond du Lac, President
JAMES C. SARGENT, Milwaukee, President-Elect
A. E. RECTOR, Appleton, Speaker
HENRY J. GRAMLING, Milwaukee, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
A. W. Rogers_____Oconomowoc

Second District:
Frank W. Pope_____Racine

TERM EXPIRES 1937

Third District:
Joseph Dean _____Madison

Fourth District:
W. Cunningham ____Platteville

TERM EXPIRES 1937

Fifth District:
A. H. Heidner_____West Bend

Sixth District:
S. E. Gavin_____Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi_____Galesville

Eighth District:
G. R. Duer_____Marinette

Ninth District:
Joseph F. Smith_____Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler_____Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson_____Iron River

Twelfth District:
Joseph Lettenberger_Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert_____Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Killins, Green Bay.
Calumet	A. J. Wagner, Brilllon	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purcell, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire-Dunn-Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	W. C. Stewart, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, Blanchardville	E. D. McConnell, Darlington.
Langlade	Paul Dailey, Elcho	W. P. Curran, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	J. M. Freeman, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Williams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Onelda-Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Anderson, Plum City	A. E. McMahon, Glenwood City.
Polk	W. C. Andrews, Frederic	Earl C. Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempealeau-Jackson-Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	W. W. Coon, Walworth	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	O. A. Backus, Nekoosa	W. G. Sexton, Marshfield.

NATURE'S AID IN THERAPY

FREEDOM from mental strain or nervous apprehension is often a factor of vital importance in the favorable outcome of disease or of operative procedure.

Where normal sleep is difficult, the use of hypnotics or sedatives is often indicated.

Ipral Calcium (calcium ethylisopropylbarbiturate) is a safe sedative which induces a sound, restful sleep closely resembling the normal. It is rapidly and readily absorbed, effective in small dosage and rapidly excreted. No untoward organic or systemic effects have been reported from its use and undesirable cumulative effect may be avoided by proper regulation of the dosage.

Ipral Calcium is supplied in 2-gr. tablets and in powder form for use as a sedative and hypnotic.

Ipral Sodium (sodium ethylisopropylbarbiturate) is supplied in 2-gr. tablets and capsules for hypnotic use and in 4-gr. tablets for preanesthetic medication.

Tablets Ipral Aminopyrine (2 gr. Ipral, 2.33 gr. Aminopyrine Squibb) provide both analgesic and sedative effects.

Ipral Calcium (Powder) is available in 1-oz. bottles. Tablets Ipral Calcium, 2 gr., Tablets Ipral Aminopyrine 4.33 gr., Tablets Ipral Sodium, 2 gr. and 4 gr., and Capsules Ipral Sodium 2 gr. are available in bottles of 100 and 1000.

For literature write Professional Service Department, 745 Fifth Avenue, New York.

Ipral **PRODUCTS**

MADE BY E. R. SQUIBB & SONS, MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Re-educational Methods Applied.

Building Fireproof

Isolated, Fireproof Psychopathic Department for Acute Mental Cases

Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin

JAMES C. HASSALL, M.D.
PETER BASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office:
Tuesday Mornings by Appointment

1330 Wells Building
Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1-3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
[illegible] M.D. Medical Director
William T. Kra[illegible]well M.D.
Merle Q. Howard M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan"

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

The Wisconsin Medical Journal

IN THIS ISSUE

TUMORS; URINARY BLADDER
By John B. Wear, M. D.
Palmer Kundert, M. D.
URINARY CALCULUS
By Walter M. Kearns, M. D.
URINARY LITHIASIS
By C. R. Marquardt, M. D.
TRAUMATISM IN UROGENITAL TRACT
By Robert Irwin, M. D.
HETEROPHORIA
SYPHILIS IN WISCONSIN

COLLEGE OF PHYSICIANS
LIBRARY
APR 16 1937
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 152

XXVI Number 3
ashington Avenue

MADISON, WISCONSIN, MARCH, 1937
Copyright, 1937, by The State Medical Society of Wisconsin
Per Year $3
Single Copy 50 Ce

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

Medical Directors:
T. H. HAY M. D. 1906-1916
J. W. COON M. D. 1916-1934
H. M. COON, M. D. 1934-

- A PRIVATE SANATORIUM
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES
- CAREFULLY SUPERVISED REST
- EXCELLENT NURSING CARE.
- MODERATE RATES $28 to $35 Per Week.

For Reservations or Additional Information, Apply To.
Medical Director Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director

FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

Let us

PRESCRIBE for YOU, DOCTOR

● EMPLOYERS MUTUALS make no effort to prescribe for the injured whose care is in your hands. But because you, as a Doctor, know what should be done for their complete recovery is not an indication that we cannot prescribe for you in a different field—Insurance.

For twenty-five years, EMPLOYERS MUTUALS have intimately known the ins and outs of Insurance practice. For twenty-five years, EMPLOYERS MUTUALS have prescribed Insurance Coverage for industry and individuals. And for twenty-five years, EMPLOYERS MUTUALS have grown rapidly and steadily on a foundation of proper underwriting, service and savings.

May one of our representatives observe your Insurance Symptoms, make his diagnosis, and prescribe the proper Automobile, Public Liability and Fire Insurance for you? Consultation is free, time-saving, and courteous. A letter or phone call will bring him to your office at your convenience. Don't overlook neglected symptoms of improper Insurance coverage—while you think of it, write or phone our nearest office!

EMPLOYERS MUTUALS

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.
EMPLOYERS MUTUAL INDEMNITY CORPORATION
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY
Home Office: Wausau, Wisconsin

Appleton
Eau Claire
La Crosse

Madison
Milwaukee
Superior

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 3

MADISON, WISCONSIN, MARCH, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

Tumors of the Urinary Bladder by John B. Wear, M.D., and Palmer Kundert, M.D., Madison ---- 165

Urinary Calculus; Modern Management by Walter M. Kearns, M.D., Milwaukee ---- 170

Blood Calcium Studies in Urinary Lithiasis by C. R. Marquardt, M.D., Milwaukee ---- 177

The Diagnosis and Treatment of Traumatism and Foreign Bodies in the Urogenital Tract by Robert Irwin, M.D., Milwaukee ---- 182

Heterophoria; Incidence of, in Routine Refractions with an Analysis of 2,000 Cases by Hilmar G. Martin, M.D., Milwaukee ---- 186

Syphilis in Wisconsin by W. F. Lorenz, M.D., Madison ---- 183

EDITORIALS

Page

The Practitioner and Mental Disease ---- 202

Fight Cancer With Knowledge ---- 205

MISCELLANY

The President's Page ---- 203

Society Proceedings ---- 206

Woman's Auxiliary ---- 208

News Items and Personnals ---- 210

Births, Marriages, Deaths ---- 211

Society Records ---- 212

Books Received for Review ---- 214

Book Reviews ---- 214

Physicians' Exchange ---- 224

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]

"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physio-mechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M.D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D
L. Tennyson Peyton, M.D.

When writing advertisers please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **B. P. Grimes, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

When Dealing With Cancer

consider the utility, accessibility, and

LOW COST OF RADIUM THERAPY

RADIUM THERAPY is of Particular Value in Carcinoma of Cervix Breast Lip Tongue Bladder Rectum Prostate • Epithelioma Uterine Bleeding and Fibroids

Our rental plan gives you an adequate radium supply, quickly available, with every requirement for approved technique—new platinum filters—all dosage range in tubes and needles. All applicators are prepared under competent medical and technical supervision. Special delivery express service.

Typical Rates

Actual time of use	50 milligrams	75 milligrams	100 milligrams
36 hours or less	$10.00	$14.50	$19.00
48 hours	13.00	19.00	25.00
72 hours	19.00	28.00	37.00
96 hours	25.00	37.00	49.00

RADON, in ALL-GOLD implants, $2.50 per millicurie

Telephone Randolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building **25 E. Washington St.**

CHICAGO, ILL.

PUBLICITY *plus* POTENT PRODUCTS

•

THE NATIONWIDE campaign to control venereal disease is receiving valuable publicity from many sources. The final results of the campaign, however, will depend upon the effectiveness of the products used and the proper supervision of all cases.

It is generally agreed that efficient treatment requires the administration of an arsenical and a heavy metal, alternately and continuously, for a period of from twelve to eighteen months. For this purpose Squibb has available two outstanding preparations—Neoarsphenamine and Iodobismitol with Saligenin.

Neoarsphenamine Squibb is designed to produce maximum therapeutic results. It is noted for its high stability, chemical uniformity, rapid solubility, brilliantly clear solution, low toxicity and high spirocheticidal power. Equally effective for the conditions in which their use is indicated are Arsphenamine Squibb and Sulpharsphenamine Squibb.

Iodobismitol with Saligenin provides all the systemic effects of bismuth in the treatment of syphilis. It presents bismuth in anionic (electro-negative) form. It is slowly and completely absorbed and slowly excreted, thus providing a relatively prolonged bismuth effect. Repeated injections are well tolerated in both early and late syphilis.

Iodobismitol with Saligenin is a propylene glycol solution containing 6 per cent sodium iodobismuthite, 12 per cent sodium iodide and 4 per cent saligenin (a local anesthetic).

• • •

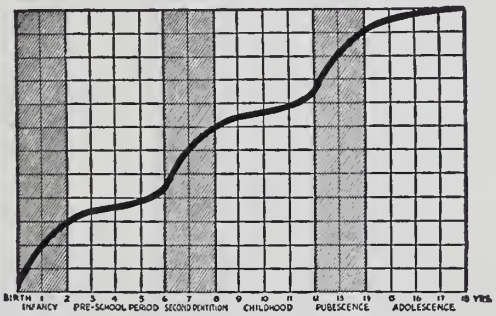
For literature address the Professional Service Department, 745 Fifth Avenue, New York City.

E·R·SQUIBB & SONS

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

How much should a child grow or gain from time to time?

That is more significant than mere weight and height measurements



CYCLES OF GROWTH FROM BIRTH TO MATURITY

The course of growth from birth to maturity is continuous but rhythmic. This span includes three cycles. The rapid growth in infancy is followed by the slow growth during the pre-school period; the rapid growth during the period of second dentition is followed by the slower growth during childhood; finally, the rapid growth during pubescence is followed by the slower growth during adolescence.

From Kugelmass' "Growing Superior Children", 1935. (Appleton-Century)

To THE PARENT the mark on the wall and the reading on the scale reveal the child's growth. But *to the doctor* deviations from the periodic gains offer a sensitive index of dietary or disease disturbances.

The weight curve in infancy furnishes the most delicate index of progress. The birth weight doubles at five months and trebles at a year. Thereafter gains are slower; six pounds during the second year; five during the third; four during the fourth and fifth years. The trend of the first growth cycle is indicated in the chart.

THIS pattern of growth repeats itself during childhood and adolescence. Once the growth increments have been determined for a child, his assessment becomes individual and accurate.

When the child fails to gain in weight, high caloric feeding is simplified by reinforcing food with Karo Syrup. If the total caloric intake exceeds the output, the child will gain weight, provided the diet is adequate and chronic disturbances corrected.

Every Article of Diet can be Enriched with Calories

Karo provides 60 calories per tablespoon. It is relished added to milk, fruit and fruit juices, vegetables, vegetable waters, cereals, breads and desserts. Karo consists of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor).

For further information, write
CORN PRODUCTS SALES COMPANY
Dept. SJ-3, 17 Battery Place, New York, N. Y.

★ **Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.**

TO THE DOCTOR'S WIFE

•

It is our conviction that cosmetics should be selected to suit the individual's requirements. We cater exclusively to you, the individual. Our representatives are trained to help you select suitable beauty preparations and to show you how to apply them.

It is only sensible to realize that a truly beautiful skin is first of all a healthy skin and secondly a well-cared-for skin.

Cosmetics serve to enhance your appearance, to present you at your best. In this regard it is well to bear in mind that a natural appearance is by far the most charming.

Carefully selected, and artistically applied, make-up preparations lose their identity as cosmetics and become an indistinguishable part of your personality.

We want it clearly understood that we in no way undertake to treat skin disorders. If you are thus afflicted we had rather that you not use our preparations without the consent of a skin specialist. Our formulary is available to the medical profession.

A card addressed to us will be referred to the manager of the territory in which you reside. It is our pleasure to be at your service.—LUZIER'S, Inc.

Beauty Preparations by Luzier

KANSAS CITY, MISSOURI

The control of syphilis today is one of the major problems of the medical profession. The necessity for concerted action in bringing syphilitic individuals under treatment is evident from the estimate that from 5 to 10 per cent of the population is infected, and that there are more than 500,000 new infections annually.

The infectiousness of early syphilis may be controlled by prompt and adequate treatment with neoarsphenamine and bismuth.

The administration of neoarsphenamine and the preparation of solutions require care, but these procedures are readily acquired. Information regarding them may be obtained by returning the attached coupon.

Please send me instructions on the technique of preparing solutions and administering injections of

NEOARSPHENAMINE MERCK

Name.....M.D.

Street.....

City.....State.....

MERCK & CO. INC. *Manufacturing Chemists* RAHWAY, N. J.

"YES, DOCTOR,"

HERE IS WHERE PARTICULAR OPTICAL CRAFTSMANSHIP IS RENDERED

To those who prefer particular quality, particular construction, and particular neatness of their glasses.

Years of sound business experience plus complete facilities.

MILWAUKEE OPTICAL MFG. CO.
730 N. Jackson St.
MILWAUKEE
WEST SIDE DISPENSING OFFICE, 231 W. WISCONSIN AVE.

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St., Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268-2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D., Frederick Menge, M.D., S. C. Plummer, M.D.

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)

ANNOUNCES CONTINUOUS COURSES

MEDICINE—Informal Course first of every week; Intensive Personal Courses.

SURGERY—General Course One, Two, Three and Six Months: Two Weeks Intensive Course Surgical Technique (Operative Surgery with Practice); Clinical Course.

GYNECOLOGY AND OBSTETRICS—Four Weeks Intensive Course starting May 3.

FRACTURES AND TRAUMATIC SURGERY—Informal Practical Course; Ten-Day Intensive Course starting April 12, 1937.

EAR, NOSE & THROAT—Informal Course; Personal Courses; Intensive Two Weeks Course starting April 5, 1937.

OPHTHALMOLOGY—Intensive Two Weeks Course starting April 19, 1937.

UROLOGY—General Course; Two Months; Intensive Course Two Weeks; Special Courses.

CYSTOSCOPY—Intensive Course every two weeks (attendance limited).

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE AND SURGERY starting every week.

Teaching Faculty—Attending Staff of Cook County Hospital

Address:
Registrar, 427 South Honore Street, Chicago, Ill.

TO HELP BUILD "A FOUNDATION OF STRENGTH FOR THE FUTURE"

IRRADIATED EVAPORATED MILK

Look for the Word "Irradiated" on Evaporated Milk Labels

The Wisconsin Alumni Research Foundation, licensing the famous Steenbock Vitamin "D" Irradiation Process, is proud indeed of its role in the Irradiated Evaporated Milk field.

Irradiated Evaporated Milk is good, rich cow's milk, doubly concentrated and irradiated... cow's milk in its safest form because it is sterilized... cow's milk in a more digestible form because it is homogenized and heated, causing the formation of softer curds in the stomach. Being doubly rich in the bone and tooth building calcium and phosphorus, as well as containing all of the milk nutrients and vitamins which milk is depended upon to supply, it is most suitable as a carrier for Vitamin "D". And Vitamin "D" in adequate amounts is indispensable if the calcium and phosphorus are to do their proper work of building strong bones and sound, even teeth. Irradiated Evaporated Milk, produced by exposing the milk to ultra-violet rays, supplies the extra amount of Vitamin "D" so essential to nutrition and health.

✧ ✧ ✧

Controlled feeding tests have shown that Irradiated Evaporated Milk, in customary feeding quantities, will prevent rickets in most normal infants. The extra Vitamin "D" in Irradiated Evaporated Milk is of even greater significance for the older child because of the large proportion of older children who receive no Vitamin "D" from special sources.

✧ ✧ ✧

Today, five of the best known brands of Evaporated Milk are Irradiated, and are available at low cost in every community. No matter when or where purchased, uniform quality and Vitamin "D" potency are insured — both through scrupulous and scientific control by the manufacturer, and through frequent tests of open-market samples assayed in the laboratories of the Foundation. Thus, infant-feeding formulas properly constructed with Irradiated Evaporated Milk have the added value of rigid uniformity. Look for the word "Irradiated" on Evaporated Milk labels!

Send for Free Booklet

(Special studies on infant feeding with Irradiated Evaporated Milk, sponsored by the Irradiated Evaporated Milk Institute, are being carried out constantly at leading scientific centers. Reprints of findings plus booklet on infant feeding, will be sent on receipt of the coupon.)

WISCONSIN ALUMNI RESEARCH FOUNDATION*

MADISON, WISCONSIN

*A corporation not for private profit . . . founded in 1925 . . . to accept and administer, voluntarily assigned patents and patentable scientific discoveries developed at the University of Wisconsin. By continuous biological assays, the public and professional confidence in accurately standardized Vitamin D is maintained. All net avails above operating costs are dedicated to scientific research.

Wisconsin Alumni Research Foundation
Madison, Wisconsin WM 337

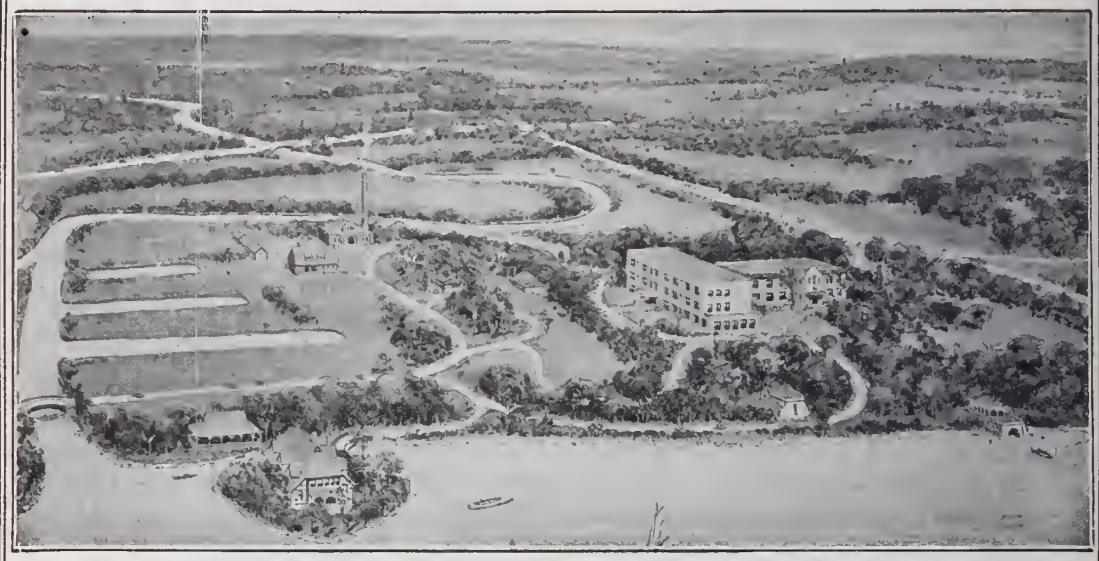
Please send reprints of research findings and booklet on "Infant Feeding with Irradiated Evaporated Milk."

Name.....

Address.....

City..... *State*.....

THE SUMMIT HOSPITAL



Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Homelike Environment

Excellent Cuisine

Moderate Rates

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter

Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen and silk. Washable as underwear. Booklet shows three different "types" and many variations of each.

Picture Shows "Type N"

For Ptosis, Hernia, Pregnancy, Obesity, Relaxed Sacroiliac Articulations, High and Low Operations, etc.

Each Belt Made to Order. Ask for literature

Katherine L. Storm, M. D.

Originator, Owner and Maker

1701 Diamond Street Philadelphia, Pa.

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

SMOKING ADVICE THAT'S EASY TO FOLLOW

THE surest way to make a patient follow the doctor's advice is to make that advice easy to follow.

It is not easy to follow the advice, "Stop smoking." But today there is a pleasant alternative: "Smoke only Philip Morris, the one cigarette proved* less irritating."

Ordinary cigarettes use glycerine, now known to be a definite source of irritation. In Philip Morris, diethylene glycol is used exclusively as the hygroscopic agent.

For your own satisfaction we suggest that you test Philip Morris yourself and on your smoking patients.

★ Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11
Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3, 306-309

Philip Morris & Co. Ltd. Inc. **Fifth Ave., N.Y.**

For exclusive use of practising physicians

PHILIP MORRIS & CO. LTD. INC.
119 FIFTH AVENUE NEW YORK

Absolutely without charge or obligation of any kind, please mail to me

★ Reprint of papers from N. Y. State Jour. Med. 1935, 35—No. 11, 590; Laryngoscope 1935 XLV, 149-154. Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245. ☐

For my personal use, 2 packages of Philip Morris Cigarettes, English Blend. ☐

SIGNED: _____

ADDRESS _____

CITY _____ STATE _____

(W1)

Reduces Hazards in Arsenical Antisyphilitic Treatment

More than one million injections of Mapharsen have been administered without serious accident. Mapharsen (meta-amino-para-hydroxy-phenyl-arsine oxide hydrochloride) has been accepted by the Council on Pharmacy and Chemistry of the American Medical Association. Your request will bring you descriptive literature by return mail.

PARKE *DAVIS*

& COMPANY

Home Offices and Laboratories—Detroit, Michigan

ATLANTA BALTIMORE BOSTON BUFFALO CHICAGO CINCINNATI DALLAS INDIANAPOLIS KANSAS CITY MINNEAPOLIS NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH ST. LOUIS SAN FRANCISCO SEATTLE

"How are you doing?"

LOCAL G-E REPRESENTATIVES
The given headquarters address is either a Direct G-E Branch or Regional Service Depot

L. A. COLES

F. G. MC INTOSH

E. H. RUNGE
940 W. St. Paul Avenue
Milwaukee, Wis.

L. J. DORSCHEL
Box 390
Madison, Wis.

J. J. VICTOR
Box 61
Green Bay, Wis.

S. V. CUTHBERT

E. A. NICKERSON
321 Medical Arts Building
Minneapolis, Minn.

B. F. HAMMER
1710 E. 8th Street
Duluth, Minn.

N. MC MAHON
Green Isle,
Minnesota

THERE is real significance in this greeting by G-E representatives, on their daily rounds among physicians and institutions in all sections of the country.

What the G-E X-Ray representative really means is this: "Doctor, one of the most important duties assigned me is that of observing how our equipment is performing in your hands. Our engineers watch jealously the record of every type of G-E apparatus in use. They want to know definitely that your G-E apparatus is giving satisfactorily the service for which it was designed, and which you have a right to expect. I am here to see that you get it."

Thus the salesman becomes your representative to the company. And because his criticisms are invited, he doesn't have to "pull his punches" in reporting to headquarters. Several hundred representatives in this way keep G-E engineers posted with up-to-the-minute information. It is the best assurance that any G-E equipment you buy is correctly designed to fulfill present-day needs.

Get acquainted with the G-E man in your locality. You'll find him a reliable source of information and technical service, always interested in your continued satisfaction as a G-E user.

GENERAL ELECTRIC
X-RAY CORPORATION

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$32.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department

Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 3 Copyright, 1937, by The State Medical Society of Wisconsin MARCH, 1937

Tumors of the Urinary Bladder*

By JOHN B. WEAR, M. D., and PALMER KUNDERT, M. D.
Madison

IN TREATING a disease where the etiology is not known, we are forced to treat its objective manifestation. By doing this we try to avoid its ultimate end which we have learned from past experience. There are many debatable points concerning tumors of the bladder, but fortunately there also are many well-known and accepted facts.

The development of methods of diagnosis and treatment has been more rapid than has our knowledge of the pathological physiology of these tumors. Adequate surgical exposure of the bladder suprapubically by Billroth in 1874 was soon followed by the introduction of the cystoscope by Nitze in 1877. Other men have long since developed these two procedures to a high degree of perfection. Further progress was made in treatment by Beer who introduced in 1910 the high frequency current. The next step was the introduction of radium seeds by Barringer in 1915, and this was followed by the cutting current in 1924 which makes the scalpel unnecessary in cancer work. Our present-day treatment rests upon these five methods.

We use but two points to justify this clinical survey of tumors of the bladder,—the need of stressing cancer control to the public at large, and the necessity for repeatedly reminding ourselves that the treatment of cancer of the bladder is not yet a stationary and standard procedure. While we deplore the existence of many unknown factors concerning cancer, we must not fail to judiciously apply and practice the knowledge we have already gained. Only by following these two precepts can we reduce mortality while thousands of individuals and institutions are seeking the revelation of the etiology of cancer. This presentation is based upon these two ideas. We realize a hundred patients taken from a charity ward will represent that large majority in our economic scale who are most likely to neglect advancing disease. However, to pick a group less desperately ill would give a much less stimulating picture. Decisive battles are never won by underestimating the strength of the enemy.

Cancer of the bladder cannot be classed as a common disease, but it holds a fair position with cancer in general—approximately 4 per cent in 583 autopsies for cancer at the State of Wisconsin General Hospital. Its general incidence is 0.1 to 0.2 per cent of all hospital admissions and 3 to 4 per cent of all urological cases.

In this series the age group and male to female ratio are about the same as have been established by other reports. The youngest patient was three years of age and the oldest eighty, with 62 per cent between fifty and seventy, and 82 per cent between forty and seventy years. The high ratio of males to females offers an interesting source of speculation. The general ratio is 4 to 1, and in this series it was 5 to 1.

CHART I

Age	*Dead*	*Living*	*Total*
3	1	0	1
27	0	1	1
30–39	3	2	5
40–49	13	7	20
50–59	17	8	25
60–69	26	11	37
70–79	9	1	10
80	1	0	1

The high incidence of hematuria in tumors of the bladder is well-known, but the signif-

* From the Department of Urology, University of Wisconsin Medical School. Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

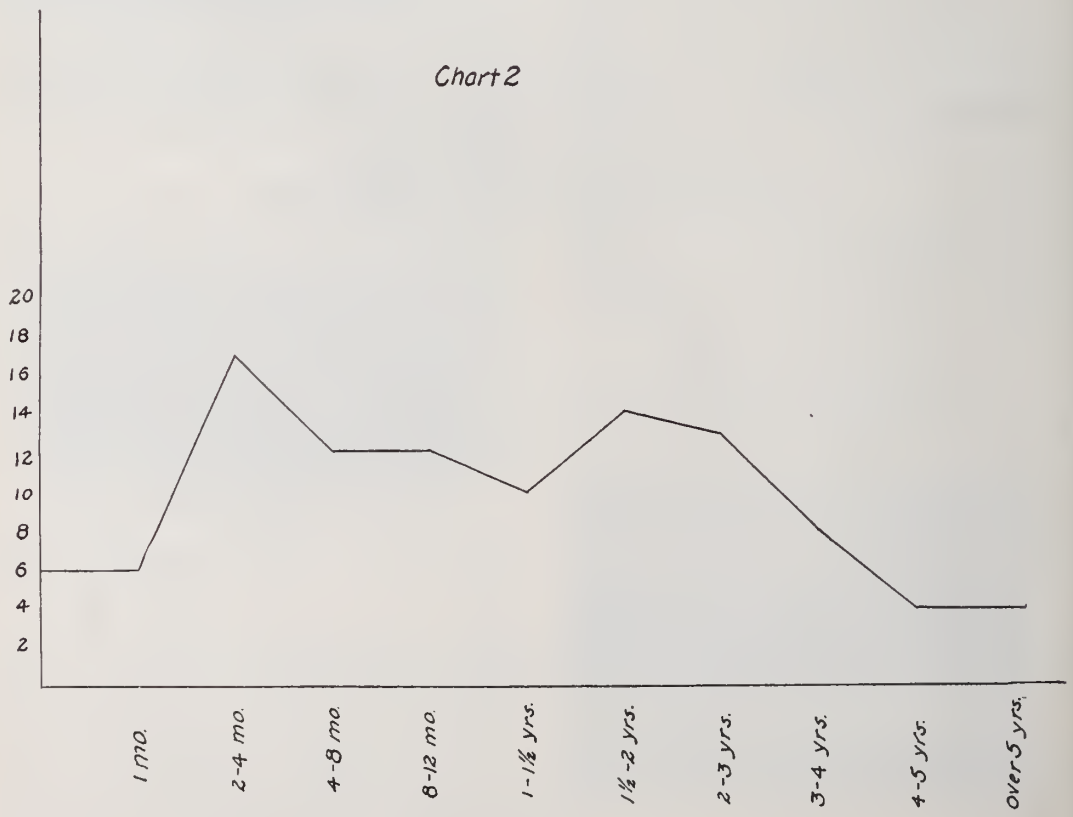
icance of unexplained urinary frequency has not been appreciated. Hematuria was the first symptom in 54 per cent, frequency in 30 per cent, and bladder pain in 8 per cent. Because there are no pathognomonic symptoms of bladder tumor, blood in the urine should always demand a careful examination until its source is determined. However, the bleeding which occurs from bladder tumor is usually intermittent in type, and the long intervals lead the patient to believe there is no serious trouble. The public apathy to bloody urine is really astounding when we consider how frightened they become when blood is lost from other parts of the body. Public education to this symptom has not traveled along with information as to the lump in the breast and the unhealing ulcer of the lip. A study of chart II will reveal a potent source of mortality. Fifty-five per cent of the series waited a year or longer, after their first symptom, before presenting themselves for treatment.

As a result of this delay we find much damage to the upper urinary tract. Twenty-three had a nonprotein nitrogen over forty; twenty-eight had a two-hour P.S.P. of less than 30 per cent and thirty-four had gross pus in the urine.

Another finding which contributed to the above unpleasant picture was the fact that 28 per cent of the patients had received either oral medication for the hematuria or bladder lavage for the frequency for varying intervals of time. Institution of therapy without accurate diagnosis yields the same bad results in the urinary tract as it does in other parts of the body.

Differential Diagnosis

In the diagnosis of these tumors the cystoscopic examination is a most important and imperative procedure. The careful use of the cystoscope yields much valuable information. Mistakes in visual inspection of the bladder are quite possible for several reasons. Failure to distend the bladder so that



all folds are eliminated and failure to cover the entire mucosa of the bladder are the two errors most likely to occur in a normally-appearing bladder. The dome and the areas just to the right and left of the internal orifice are difficult to visualize without care. Other common errors are likely to be one of the following:

1. Badly infected bladder with calcareous deposits.
2. Changes in the mucosa due to tumors from without — as rectum, uterus, ovary, and cervix—and diverticulitis of the colon.
3. Bullous edema from stones, tuberculosis, or previously fulgurated areas.
4. Accepting some other lesion as primary; for example, prostatic hypertrophy, diverticulum, or stone.

Both benign and malignant tumors are found in the bladder, and well over 90 per cent are epithelial in origin. This discussion deals only with the epithelial type. Other writers have stated that 35 per cent of those tumors are benign. This is probably a fair estimate. However, due to their tendency to recur and to undergo malignant change, we believe our patients would more willingly lend themselves to proper treatment if we referred to them all as cancers. Of the thirty living patients in this series only ten have returned for follow-up cystoscopic examination as advised. This is a sad commentary on the general public's appreciation of the seriousness of the disease. We think it is partially due to the fact that we call them tumors instead of cancers—a much more arresting term.

Cystoscopically, the typical benign tumor is easily recognized as is the typically malignant tumor. The final impression, however, must rest with the biopsy. However, this valuable step in diagnosis should be questioned when a single biopsy is reported as benign. This, of course, is due to the variation which occurs in the tumor. One area may show benign tissue while another will show malignant tissue. Rarely will a typically malignant tumor be found in an otherwise normal bladder.

The types of tumors seen in this series are shown in chart III. We have not used the term benign papilloma because we think they should all be regarded as potentially malignant. Six patients either died or left the hospital before the type was determined. In fifty-three cases the microscopic grades of the tumors were given, and these are shown in chart IV. The degree of malignancy is obviously a determining factor in recovery or death.

CHART III

Type	*Living*	*Dead*	*Total*
Malignant papilloma	12	4	16
Papillary carcinoma	13	18	31
Infiltrating carcinoma	0	30	30
Transitional cell carcinoma	0	8	8
Endothelioma	0	3	3
Multiple malignant papilloma	5	1	6
Total	30	64	94

CHART IV

Grade	*Living*	*Dead*	*Total*
I	7	2	9
II	5	4	9
III	6	16	22
IV	0	13	13
Total	18	35	53

The most common location of these tumors is given as the bladder base or in the ureteral orifice areas. Possibly our failure to find the base as the most frequent site was due to the extensive character of 15 per cent of the tumors. These large tumors extending from one area of the bladder to another very graphically show that mortality is related to the size of the tumor. The multiple tumors were practically always malignant papillomas of very low-grade malignancy. Since these charts were made another case with multiple tumors has died of renal sepsis brought on by scarring and contraction of the bladder due to treatment. See chart V.

CHART V

Location	*Living*	*Dead*	*Total*
Trigon	13	25	38
Right or left wall	7	14	21
Posterior wall	1	3	4
Dome	2	4	6
Internal orifice or bladder neck	0	1	1
More than one location:			
Extensive	2	15	17
Multiple	5	1	6
Total	30	63	93

Method of Treatment

The method used in the treatment of a bladder tumor is usually dependent upon the type, location, and size of the tumor. In addition the preference of the surgeon for electrocoagulation, radium, or resection will determine the treatment in some localities. The following outline will help to avoid a lengthy discussion of what is generally recognized as the available methods and where to use them:

I. Transurethral.

1. Electrocoagulation.
   (a) Used in benign and small early malignant papillomas easily accessible.
2. Radium.
   (b) Used in combination with electrocoagulation where there is some suspicion of the stalk. Also sometimes used in multiple tumors.

II. Major Surgery.

1. Cystostomy and electrocoagulation.
2. Cystostomy, electrocoagulation and radium. These two methods should be used on papillary carcinomas occupying a nonresectable portion of the bladder. Some writers state radium is unnecessary.
3. Resection. Either transperitoneal or extraperitoneal resection of the tumor and portion of normal bladder is treatment of choice where the location of the growth will permit.
4. Cystectomy. This is most radical and is reserved for very extensive tumors still limited to the bladder or recurring multiple tumors. Hope of cure by other methods and difficulty in disposition of ureters make its use rather infrequent.

III. Palliative Cystostomy.

This procedure is too frequently necessary because of patients' neglect.

The treatment employed on the 100 cases in this report is shown in chart VI. All but four of the patients were traced. The four not traced were grouped under those having died. As would be expected, the largest number of living are found in the transurethral group as they were the smallest and least malignant tumors. The most discouraging aspect of the series is that only 17 per cent could be treated conservatively. This is a long way from the 35 per cent generally reported. The patient's general condition and the size of the tumor influenced the treatment in many cases so that less radical methods had to be utilized. Twenty-two per cent of the group were graded as good risks; 34 per cent were graded as fair and 35 per cent as poor surgical risks.

CHART VI

Treatment	*Living*	*Dead*	*Total*
Transurethral electrocoagulation	13	4	17
Cystostomy with electrocoagulation	8	14	22
Cystostomy with electrocoagulation and radium	5	7	12
Extraperitoneal resection	2	5	7
Transperitoneal resection	1	4	5
Palliative cystostomy or none	1	36	37
Total	30	70	100

The time elapsed since treatment in the living patients is shown in chart VII. Thirty-five patients died in the hospital and thirty-five died at home. Eighteen of the patients dying in the hospital were inoperable. Those dying at home lived from one month to five years.

CHART VII

The Living Patients

	Time elapsed since treatment						
Treatment	*1 yr.*	*2 yr.*	*3 yr.*	*4 yr.*	*5 yr.*	*6 yr.*	*7 yr.*
Transurethral electrocoagulation	2	2	2	4	2		1
Cystostomy with electrocoagulation	2	2	1	2			1
Cystostomy with electrocoagulation and radium		3	2				
Extraperitoneal resection		1				1	
Transperitoneal resection		1					
Palliative cystostomy or none	1						
Total	5	9	5	6	2	1	2

Of the thirty living patients only ten have returned for follow-up cystoscopic examination when told. Six of the thirty stated by

letter that they have noticed some hematuria lately but not sufficient to make them return to the hospital. What would it take to make them return to the hospital?

Much has been written about the local character of bladder cancer. Their local character is unquestioned in their early stages, but just what is an early stage of cancer? That they do metastasize is now recognized, and figures are given at from 30 to 40 per cent. The stage at which these metastases occur is difficult to establish because few cases die at the so-called early stage. We are dealing with a potentially killing growth. Why not regard it as such? The incidence of metastases in twenty-one autopsies was 52 per cent. Lymph nodes, lungs, and liver were the most commonly involved. The second significant finding was the frequency of gross kidney damage in 75 per cent. The upper urinary tract may be the cause of death, even though the cancer is successfully treated. See chart VIII.

CHART VIII

Autopsy Findings
21 Cases

Pneumonia		9	43%
Kidney damage (dilatation or grossly infected)		15	75%
No metastases		10	52%
Metastases:			
Lungs	5		
Liver	7		
Pancreas	2		
Adrenals	2		
Lymph nodes	7		
Bones	2		
Spleen	1		
Total with metastases		11	

Summary

The clinical histories of 100 cancers of the bladder are given and discussed. The advanced stage of the disease in this group is obviously due to the lack of early or even reasonably early treatment. Reduction in mortality must come from public education as to the significance of hematuria and frequency and to the dangers of oral and local medication. Diagnosis is usually simple when properly done, but the selection of the type of treatment is likely to be difficult. More radical types of treatment seem to be indicated when we stop to consider the dangerous possibilities of the disease and should not be sidestepped in order to reduce immediate mortality. Urosepsis, uremia, and metastases will ultimately destroy the patient. The importance of repeated follow-up examinations must be continuously stressed to the patient.

COLLATERAL READING

Beer, Edwin: Tumors of the Urinary Bladder. Baltimore, Wm. Wood and Co., April, 1935.

Chetwood, C. H.: Cardinal Facts Relating to Vesical Neoplasms With Case Reports. Urol. and Cutan. Rev., **35**:477–483, 1931.

Cunningham, J. H.: Tumors of the Bladder. J. Urol., **25**:559–587, 1931.

Ferguson, R. S., et al: Cancer of the Bladder: A study of the five-year end results in 658 epithelial tumors of the bladder in the Carcinoma Registry of the American Urological Association. J. Urol., **35**:481–490 (April) 1936.

Greenberg, G.: Transurethral Conservative Treatment of Bladder Tumors. Historical and Clinical Review. Urol. and Cutan. Rev., **39**:471–475 (June) 1935.

Kretschmer, H. L., et al: Tumors of the Bladder in the Carcinoma Registry of the American Urological Association. J. Urol., **31**:423–472 (April) 1934.

Lazarus, J. A., and Rosenthal, A. A.: Tumors of the Bladder With a Report Based on Seventy-Seven Cases. Urol. and Cutan. Rev., **39**:802–811 (Nov.) 1935.

Lower, W. E.: The Standard Treatment of Malignant Tumors of the Bladder. Surg., Gynec., and Obst., **60**:513–515, 1935.

Mathews, R. F.: Bladder Tumor. A survey of fifty cases. Am. J. Surg. N. S., **11**:343–353, 1931.

Roche, A. E.: The Early Diagnosis of Malignant Disease of the Bladder. Practitioner, Vol. CXXX **2**:206–216 (Feb.) 1933.

Smith, G. G., and Mintz, E. R.: Bladder Tumor: Observations on 150 Cases. Am. J. Surg. N. S., **20**:54–63, 1933.

CLINICAL USE OF DIURETICS

The most advantageous diuretic to use will depend on the condition of the kidneys and whether filtration or reabsorption can be varied to the greatest degree. Joseph M. Hayman Jr., Cleveland (*Journal A. M. A.*, Dec. 12, 1936), studied the records of 213 patients with edema who were admitted to the Lakeside Hospital during the last eight years in an effort to assay the value of diuretics. An increase of 500 cc. or more in urine volume above the control level has been regarded as a diuresis. The degree of diuresis varied greatly. In many cases of congestive heart failure, digitalis in full doses led to as marked a diuresis as any other drug. When effective, the mercurials and urea usually produced larger urine volumes than the caffeine group, salts or sugars. Diuretic drugs should be regarded only as adjuvants to other methods of treatment in the removal of edema. There must be an adequate renal blood flow and a certain degree of parenchymal integrity in the kidney for them to be effective. They have no value in acute nephritis and rarely in chronic glomerular nephritis. Diuretics have their greatest usefulness in congestive heart failure, after the patient has been digitalized. Here the mercurials salyrgan and mercupurin are the most regularly effective. In portal cirrhosis with ascites, while diuretics have not prevented the necessity of tapping, the regular use of these mercurials has lessened its frequency. Patients with "nephrotic" edema have responded more regularly to ammonium chloride and salyrgan or to urea than to any other diuretics.

Urinary Calculus; Modern Management*

Discussion of Stone-Forming and Dissolving Factors; Preliminary Report on Vitamin A Injections, Diet and Lactic Acid Therapy

By WALTER M. KEARNS, M. D.
Milwaukee

THE past decade has witnessed several developments which have modified considerably the management of urinary calculus. The modern concept considers stone formation not as a disease entity but as a symptomatic effect with an underlying pathological condition. It involves an intriguing study of the patient as a whole. The accumulated discoveries about the etiology of urinary stone have resulted in several hypotheses for the origin, formation and recurrence of calculus. While the prevalent theories may appear conflicting and difficult of application to treatment, their correlation is possible. When the interrelation of these causative and contributory factors is demonstrated there results a better understanding of therapeutic principles.

The present-day physician has inherited a defeatist attitude toward stone dissolution—his reaction in this direction is one of utter futility. The fraudulent efforts at stone cure, which duped the foolish and the wise as well, during the past century, caused the physician to look askance at any claim of success. In fact, he has become so reactionary as to neglect to adequately apply the possible aids of chemistry to the problem. Certainly the discovery in Egyptian tombs of kidney and bladder stones retaining their cohesive forms for over six thousand years offers mute defiance at our efforts to dissolve them. On the other hand the occasional roentgenographically proven dissolution of stone, either spontaneously or in patients where definite dietary measures were applied, offers the clue that it may be accomplished more frequently.

Vitamin A

Unquestionably, the most important factor in the production of urinary stone is diet, and particularly the part played by vitamin A deficit. Faulty diet was recognized by the earliest writers as concomitant with stone formation. Down through the ages all physicians have placed great emphasis on diet as a preventive for stones. Throughout the world a poor dietary obtains wherever a high incidence of stone is discovered. Osborne and Mendel,[1] Von Leersum,[2] McCollum,[3] and others among the early experimenters with vitamin A deficiency, all noted the formation of urinary calculi in their animals suffering with vitamin A deficiency. McCarrison[4] produced stones and encrustations in the urinary tract of rats by the removal of vitamin A from the diet. In these calculous animals, when the order was reversed, and ample vitamin A added to the diet, there occurred, as proved by roentgenography, a dissolution of calculi. Here is a simple demonstration of cause and effect. The same results obtained in similar experiments were published by Fujimaki[5] in Japan. McCarrison,[6] in reporting the outcome of later experiments said, "The ingestion of lime in excess of requirements, by rats fed on a diet deficient in suitable proteins, fat soluble vitamins and vitamin C, exercises an influence which is markedly favorable to stone formation. This conclusion is in conformity with the widespread belief that long continued consumption of hard water is favorable to the formation of stone. It would seem, however, that the excessive ingestion of lime will not exercise any such effect in the presence of a properly constituted diet." So far as is at present known any protective action against stone formation appears to be confined to vitamin A.

---

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

There is pertinent clinical evidence which conforms with the experimental proof, namely, the decline in recent years of the incidence of stone in the bladder of children. The old adage that bladder stone is a disease of little children and old men must be modified to exclude children. A century ago in England, 45 per cent of the occurrences of vesical calculus were in children under fourteen years of age and likewise in Civiale's Clinic[7] in France over 50 per cent of the operations for stone were on patients under twenty years of age. While there is still a frequent occurrence of stone in children, in some of the less highly civilized countries of eastern Europe and Asia it contrasts with the changed picture in England, France and America today, where, coincident with the practice of feeding vitamin-rich diets to the young, calculous disease has practically disappeared from childhood.

Despite this convincing evidence, both experimental and clinical, there has been a tardy application of vitamin A feeding to stone-forming patients. Redewill[8] was the first to apply vitamin feeding as a curative measure in encrusted cystitis. Our[9] efforts pioneered the use of vitamin A feeding as a preventive of recurrence of stone formation. Later Higgins[10] applied the principle of vitamin A feeding and acid-ash diet to calculous patients. Moreover through animal experiments he corroborated the results of McCarrison and Fujimaki. He[11] has collected a series of fifty-two smaller kidney stones which have disappeared under dietary treatment. His work has done much to develop and popularize improved dietary methods in managing these patients.

In the human, the manifestation of complete dietary absence of vitamin A occurs less frequently then the other well-known vitamin deficiencies manifested in scurvy, rickets and beriberi. Nevertheless, many people, for long periods, either because of poverty or a capricious appetite resulting in poor dietary habits, are deprived of sufficient vitamin A to maintain full health and vigor. Others because of gastro-intestinal or hepatic disease fail to utilize an adequate intake of vitamin A.

There has amassed a voluminous literature on vitamin A and its deficiency in man and animals. Epithelial structures throughout the body are dependent upon it as regulators of their cellular activities. Mendel states, "It is quite likely that its influence is felt indirectly in that the vitamin helps to preserve the physiologic integrity of various epithelial structures and thus to maintain the first line of defense against the invasion of bacteria." The demonstrations of Wolbach and Howe,[12] confirmed later by other investigators, reveal a metaplastic keratinization of the epithelium in various parts of the respiratory, alimentary and genito-urinary tracts, in the eyes and in the paraocular glands. Tyson and Smith[13] state that experimentally the metaplastic changes involve the following structures in order: the sublingual glands, the submaxillary glands and the epithelium of the renal pelvis and of the trachea and bronchi. The epithelium of the renal pelvis may be involved quite early. Metaplasia and infection are always present in advanced cases. Renal calculi are prone to occur, and when obstruction to the urinary outflow is present pyonephrosis develops. The stones are formed primarily of calcium magnesium phosphate, although the presence of infection may alter their content. Pathologic changes in the human which accompany avitaminatosis A parallel closely those found in experimental animals. Bloch[14] noted various infections in his eighty-six xerophthalmic patients. Pneumonia and bronchitis occurred in twenty-seven, otitis media in thirteen, pyodermia in fourteen and pyelitis in twenty-seven. Sweet and K'ang,[15] in a clinical and anatomic study of avitaminatosis A among the Chinese, found, in the autopsies on seventeen patients, three with early metaplastic changes in the epithelium of the renal pelvis.

Night blindness is a common manifestation. It was known in Hippocrates' time and truly enough was treated and cured with a liver diet. Another ocular manifestation is dry eye or xerophthalmia followed by the development of keratomalacia and infection. Jeans[16] has recently described a photometer test for the detection of night blindness to indicate the presence of vitamin A deficiency

and also the response to therapy. Higgins has taken up the use of the instrument to indicate the degree of deficiency in stone-bearing patients. Lydia Roberts,[17] at the University of Chicago, has reached the conclusion, after studying a large series of examinations, that the instrument in its present form is too crude to rate the merit attached to it. Upon repeating tests on the same individuals it was impossible to duplicate the original readings. Moreover, deviations of the degree that Jeans considered significant, the Chicago University workers considered normal.

A test for this deficiency in animals was described by Evans and Bishop[18] who found a very constant appearance of cornified cells in the vaginal secretion. According to most observers this manifestation appears earlier and is more consistently present than night blindness and xerophthalmia. The finding at times of keratinized cells in the vaginal and tracheal secretions, urine, and in scrapings from nose and eye, does not offer the basis for a reliable test. There is as yet no practical and reliable test for the deficiency in the human. Refinements in the photometric method of measuring night blindness and reduction in the cost of the instrument may lead to its development into an acceptable test.

Infection

The second theory concerning the formation of stone is infection, which has long been known to bear a close relationship. Rosenow[19] demonstrated certain strains of bacteria, obtained from distant foci of infection in calculous patients, to be capable of producing urinary stones in animals. His classical demonstrations have led to widespread elimination of foci of infection so often associated with stone. Many examples of the concurrence of these foci with calculus in the urinary tract could be cited, for instance, the frequency of development of stone in patients with chronic osteomyelitis. Eisenstaedt[20] and others consider bacteria most important in stone formation and find them acting as nuclei of stones. They describe infectious calculoses as the encrustations of urinary salts on bacterial clumps. The association locally in the urinary tract of stone and infection is the rule. If the infection is not primary it is an ultimate secondary development. Urea-splitting organisms, especially the obstinate B. proteus, are responsible for encrusted cystitis, encrustations upon urinary fistulae, and play an important part in recurring calculous disease. These infecting organisms break down urea with liberation of ammonia causing an alkaline urine with precipitation of phosphates and carbonates. The advent of this type of infection often changes the make-up of stone, resulting in outer laminae of deposits from alkaline urine, whereas the nucleus of the stone is composed of the precipitation of uratic or oxalatic crystals from acid urine. It is significant that urinary infections very frequently accompany epithelial changes due to vitamin A deficiency. Because of its relationship to the infectious changes, vitamin A has been designated the anti-infective vitamin.

Colloidal Balance of Urine

The phenomenon of colloid balance, or the holding of the crystalloids of the urine in solution, is a mechanism through which the several relatively insoluble crystals are held in a supersaturated solution. The sensitivity of this balanced mechanism is frequently demonstrated in the mass precipitation of urates on chilling. In like manner the phosphates and carbonates are heavily precipitated with a change in the hydrogen ion concentration to the alkaline side. The work of Keyser[21] in this phase of physical chemistry has revealed the behavior of urinary crystals in assuming various forms in their precipitation. He believes that in the process of calculus formation the participating crystals take on a fusing spheroidal type. These atypical coalescing forms differ from the usual crystalline forms assumed by the salts. Under ideal conditions the colloids, by adsorption, carry on their surfaces the insoluble crystalloids, keeping them in solution until a chemical disturbance or a superabundance of crystalloids appears. Certainly supersaturation of crystals in the concentrated urine of the dehydrated inhabitants of India must tax, beyond the limit, the adsorptive power of the colloids and, no doubt,

contributes to the development of the high incidence of bladder stone so characteristic of these people.

The action of bacteria and their by-products, either in changing the hydrogen ion concentration or by acting directly upon the colloid, may similarly cause precipitation. But mere sedimentation does not necessarily mean stone formation. As pointed out by Keyser, an actual change in form and adhesiveness of crystals must occur together with setting of the colloidal gel. The cementing of the crystals and colloidal gel, together with fibrin, mucus, bacterial by-products and urinary pigments, results in a calculus. The influence on the crystalloid-colloid balance that occurs with changes in surface tension of the lining of the urinary tract due to hyperkeratinization, ulceration and infection accompanying vitamin A deficiency must frequently enter the picture. Vitamin A deficiency, in the opinion of Joly,[22] may also, by an unknown biochemical action on the urine, disturb the solution.

There is a close-knit interrelation between these three factors: First vitamin A deficiency with its epithelial degeneration and reduced resistance to infection, then infection with its disturbing action and by-products, and then colloidal disturbance with its dependence on the two other factors.

Stasis

The fourth factor, stasis, is one most commonly demonstrated in association with stone. The common occurrence of stone in the obstructed bladder, in diverticula, and in hydronephrosis is well-known. The much more frequent location of renal stone in the lower calyx than in any other part of the kidney is an example of the importance of stasis, as is likewise the relatively high incidence of stone in patients with prolonged orthopedic disabilities. The horseshoe kidney and other anomalies, notable for their faulty drainage, develop stone six times more frequently than the normally formed kidney. Certainly the absence of the normal irrigating current, as exists with stagnancy of urine in any part of the urinary apparatus is most conducive to the execution of any of the coexisting stone-forming influences. The condition of stasis is held by some writers as the most important condition required for development of concrements—in fact as a prerequisite.

Hyperparathyroidism

Albright and his coworkers,[23] at Massachusetts General Hospital, have accumulated twenty-nine cases of proved hyperparathyroidism. Kidney stone was found in nineteen of these patients. There occurs an increase of calcium and phosphorus in the urine, and Albright believes that in this condition the cause of stone formation is simply a supersaturation of the particular elements in the urine. The stones are practically all pure calcium phosphate. This excessive and persistent showering of these elements in the urine proceeds to the depletion of the bony skeleton. Hyperparathyroidism demands prompt surgical removal of the parathyroids. It is surprising that a higher incidence of stone does not occur. The avoidance of stone in some of the hyperparathyroidic individuals may be due to the absence of the contributory factors enumerated and on the other hand the development of stone may very well be explained by the coexistence of causative factors such as vitamin A deficiency.

Treatment

By using as a guide this resume elucidating the interrelation and interdependence of the accepted causative factors and their effects, the problem of treatment of urinary stone is approached. Each new patient with stone presents an individual problem in treatment. He requires a more special management than the patient with most any other urological condition.

The removal of stone is only a minor step. The patient cannot be considered cured if his urinary organs are left infected or poorly drained. Neither can he be considered well treated unless particular guidance in his dietary is insisted upon.

Of course, a complete history and physical examination are of first importance. The examination of the blood including the usual counts and blood chemistry tests and in addi-

tion an estimation of the uric acid, phosphorus and calcium are carried out. In this way important leads in regard to metabolic and endocrine disturbance may be uncovered. Plain roentgenograms of the urinary tract, intravenous urograms, cystoscopy, ureteral catheterization and pyelography are carried out as indicated to complete information. Separated kidney urine specimens are collected for determination of the *pH* of the urine, sediment crystals and for culture as well as the usual chemical, microscopic and functional tests. When the diagnosis is completed the usual and accepted indications for either surgical or medical management are followed.

In those patients who are submitted to surgery, thorough removal of all stones and fragments is essential. The use of the x-ray apparatus at the operating table is necessary in some instances. The correction of stasis must be attained. In some patients it is indeed difficult and practically impossible. Plastic repair of hydronephrosis, diverticulectomy, prostatectomy or prostatic resection are vital in the prevention of recurrence of stone. Instrumental aid in the form of cystoscopic dilatation of ureteral stricture and sounding of urethral stricture are common procedures relied upon to overcome stasis.

The eradication of foci of infection needs little emphasis since it is so well recognized as a part of treatment. Teeth, tonsils, sinuses, appendix, gallbladder, prostate gland, osteomyelitis and any other chronic foci must be treated. Local urinary tract infection must be treated by dilatation, irrigation and instillation as indicated.

Urinary antiseptics with acidification of the urine offers the simplest method of attack in ordinary infection. The ketogenic diet, popularized by Clark,[24] is most efficacious in combating bacillary infections and is well combined with urotropin and acidfying agents. In our hands ammonium chloride has been the most effective acidifying agent. Cook[25] has recently obtained excellent results in various bacillary infections with the use of ammonium mandelate, which carries the dual property of acidification and bactericidal effect similar to oxybetabutyric acid.

The first and most important prescription in regard to diet is an increased intake of vitamin A. Two halibut liver oil capsules are given three times a day. Where the liver oil is not well tolerated or there is any indication that it is not being utilized, intramuscular injections of concentrated vitamin A liver oil are administered. The preparation of choice is the oil from the liver of the black sea bass which contains ten times the potency of halibut liver oil. This injection contains a minimum of oil and a maximum of vitamin A thus diminishing local tissue irritation. This procedure we consider a most important step where strenuous treatment is desired. Brewers yeast tablets are given three times daily. All vitamin rich foods are included in the diet because of their synergistic action with vitamin A. In patients excreting calcium oxalate crystals—tomatoes and rhubarb are omitted. But it is far more important to overcome stone-forming factors than to prohibit some of the items which, though they may supply certain crystals, may also help to overcome deficiency because of their vitamin content. The amount of crystals excreted is not the most vital consideration because the solubility of the oxalates varies greatly in different urinary specimens. Joly notes that the amount in solution may reach 100 mg. in 500 cc. in one specimen, while in another specimen there is practically no solubility, with all of the calcium oxalate occurring in the precipitated form. Moreover there is an endogenous origin of oxalate in the tissues and in the intestinal tract, where bacterial fermentation produces at times large amounts of oxalic acid. Similarly the patient excreting uratic crystals may well have the purine-containing foods such as liver, kidney and sweetbreads restricted, but the fundamental cause of precipitation such as vitamin A deficiency, infection and stasis must be corrected as well.

The dietary treatment is regulated after the hydrogen ion estimations and sediment crystals are determined. Analysis of stone or stone fragments is carried out whenever possible. Since most stones occur in alka-

line urine the acid-ash vitamin A rich diet is prescribed (diet lists distributed). To bring about a shift in the *p*H to 5.5 or less is the goal. The acid-ash diet in no way interferes with the administration of the usual urinary antiseptics or other treatment for infection. Except where the combating of infection requires a limitation of fluid intake to concentrate bactericidal drugs in the urine, an ample fluid intake is ordered. In rarer instances where stone develops in an acid urine the alkaline ash vitamin A rich diet is prescribed and the *p*H kept at approximately 7.0.

Following our recent observation and report of the complete dissolution of a large renal calculus, later study demonstrated an unusual increase of lactic in the patient's urine. A review of the properties of this acid revealed its peculiarly strong affinity for calcium with which it unites to form soluble calcium lactate. In the manufacture of leather the tanner soaks hides in lime in order to de-hair them. After brushing and scraping off the excess lime and depilated hair his most practical method of removing the lime from the hide consists of a soaking in lactic acid. Here the mild acid exerts its property of removing the lime quickly and thoroughly without harming the leather.

Since lactic acid occurs abundantly in nature, in such palatable drinks as buttermilk, beer, sour wine, and sauerkraut juice, these fluids have been added to our diet list in an effort to bring about the presence of lactic acid in the urine. B. acidophilus milk and cereal-lactic are frequently added. Lactic acid is administered by mouth in increasing doses up to tolerance. From 6 cc. up to 20 cc. of 50 per cent solution, four times daily, is the usual dosage. Prolonged lactic acid irrigations of kidney pelvis stones through the indwelling ureteral catheter, and through the indwelling urethral catheter, for vesical stones, have been carried out. A 10 per cent solution may be used in the kidney and a 5 per cent solution in the bladder without irritation. Inoculations of milk cultures of B. acidi lactici into the kidney pelvis have been carried out by injection of 3 cc. to 5 cc. through the ureteral catheters every fifteen minutes over a forty-eight-hour period. During the inoculations large dosages of lactose are administered by mouth with the appearance of some of the sugar in the urine to aid the implantation of the organisms in the pelvis. Likewise the implantations have been made in one patient with bladder stone. Later cultures have proved the persistence in the urine of these fermenting organisms. Since this work has been under way for a period of only four months, convincing results are as yet wanting. Consequently this paper will serve as a preliminary report to be followed later by roentgenographic evidence of results. Up to this time the disappearance of a large ureteral stone and appreciable rarefaction in three different large renal stones have been observed.

Periodic estimations of lactic acid in the urine are being measured by the Friedemann–Cotonio–Schaffer method through the kindly cooperation of Miss M. C. Perry at Columbia Hospital.

Conclusions

The usual accepted surgical indications and procedures are adhered to. The most important part of the management of urinary stone formers is the control of the diet. The feeding of vitamin A rich and acid-ash diet for the prevention of recurrence is imperative. Dietary control of all inoperable patients, those with large bilateral renal stones or with recurring calculi are necessarily placed under the regime.

The addition of lactic acid, both internally and locally, may be carried out without ill effects. The presence in dilute acid urine of even small amounts of lactic acid over long periods gives promise of aiding in the erosion and dissolution of formed stones. Certainly increase in the size of existing stones or the formation of new stones is most unlikely.

During the past eight years, since our institution of vitamin A feeding, the vitamin rich diet has been recommended to 318 patients. Among ninety-four of these patients who have been followed and who have diligently complied with instructions, there has been a recurrence of stone in only two patients. To attain the dissolution of stone the patient must espouse the cause wholeheart-

edly; cooperation of months and even years between the patient and physician must be maintained.

DISCUSSION

Dr. Alf H. Gundersen (La Crosse): I appreciate the privilege of hearing this very interesting paper on the management of urinary calculi. Dr. Kearns has summarized and brought up-to-date all the important contributions to our knowledge of this disease or disease manifestation. He has also made an important clinical contribution by demonstrating the actual disappearance of renal stones by dietary measures. This is a fine piece of work which deserves the highest praise.

Unfortunately, I have in my own experience been unable to duplicate his fine results. I have taken the attitude that because these stones have disappeared in isolated instances by dietary measures, it does not follow that this principle can be used in all cases. The causative factor of these particular disappearing stones has been removed, and hence, the stones have not recurred. But it does not follow that this form of treatment is applicable to stones which have some other cause of origin.

We do know that there are many factors involved in stone formation and certainly one important factor which is not yet clearly understood. I am thinking of the relationship of the solubility of urinary salts to urine of varying hydrogen ion concentration. Here at the University of Wisconsin it has been very recently shown that a given volume of urine of low hydrogen ion concentration, that is to say 5.5, will absorb into solution approximately three times as much calcium phosphate as when the urine is of neutral reaction.

This factor of the solubility of salts I believe is of tremendous importance in the reformation of calculi. This immediately brings up the problem of urinary acidification which in the average case is not difficult with the use of ammonium chloride, ammonium nitrate, ketogenic diet and finally latterly ammonium mandelate. However, given a proteus infection of the kidney which is a urea-splitting organism, the problem of acidification is extremely difficult and oftentimes impossible despite the use of acidifiers and ketogenic diet. In these people it would be, to my judgment, better to give them a very low protein diet and ammonium-free medication in order to decrease the urea content of the urine down to the minimum.

I also raise the question of the time element in urinary stasis as a possible cause for stone formation. The precipitation of urinary salts in a beaker kept at body temperature takes time. Isn't time element in urinary stasis an important factor in stone formation? By time I mean hours to days.

REFERENCES

1. Osborn, T. B.; Mendel, L. B.; and Perry, Edna L.: The Incidence of Phosphatic Calculi in Rats Fed on Experimental Rations. J.A.M.A., **69**:32 (July 7) 1917.
2. Von Leersum, E. C.: Vitamin A Deficiency and Urolithiasis. J. Biol. Chem., **76**:137, 1928.
3. McCollum, E V., and Davis, Maguerite: The Necessity of Certain Lipins in the Diet During Growth. J. Biol. Chem., **15**:167–175, 1913.
4. McCarrison, R.: The Experimental Production of Stone in the Bladder. Brit. M. J., **1**:717 (Apr. 16) 1927.
5. Fujimaki, J.: (Progress of the Science of Nutrition in Japan, by Tadasu Saiki. League of Nations Health Organization. 1926. Obtainable from Constable and Company, London.) Editorial, Lancet, July 30, 1927, 239.
6. McCarrison, R.: The Experimental Prevention of Stone in the Bladder in Rats. Brit. M. J., **2**:159–160 (July 30) 1927.
7. Civiale Clinic Referred to by Joly. Vide infra.
8. Redewill, F. H.: Comparison of Leukoplakia, Malakoplakia and Incrusted Cystitis. J.A.M.A., **92**:109 (Feb. 16) 1929.
9. Kearns, W. M., and Turkeltaub, S. M.: Incrusted Cystitis. J. Urol., **26**:465–471 (September) 1931.
10. Higgins, C. C.: A. Production and Solution of Urinary Calculi. J.A.M.A., **104**:1296–1298 (Apr. 13) 1935.

    B. The Dietary Management of Urinary Lithiasis. J. Am. Diete. A., **11**:518–527 (March) 1936.

    C. Tr. the New England Branch of the Am. Urol. Assoc., Boston, 1935, pp. 6–23.
11. Higgins, C. C.: Personal Communication.
12. Wolbach, S. B., and Howe, P. R.: Tissue Changes Following Deprivation of Fat—Soluble A Vitamin. J. Exper. Med., **42**:753–777 (December) 1925.
13. Tyson, M. D., and Smith, A. H.: Tissue Changes Associated with Vitamin A Deficiency in Rat. Am. J. Path., **5**:57–69 (January) 1929.
14. Bloch, C. E.: Effects of Deficiency in Vitamins in Infancy. Am. J. Dis. Child., **42**:263–278 (August) 1931.
15. Sweet, Lewis K., and K'ang, H. J.: Clinical and Anatomic Study of Avitaminosis A Among the Chinese. p. 699.
16. Jeans, P. C., and Zentmire, Zelma: The Prevalence of Vitamin A Deficiency Among Iowa Children. J.A.M.A., **106**:996–997 (Mar. 21) 1936.
17. Roberts, Lydia Jane: Personal Communication. Univ. of Chicago.
18. Evans, H. M., and Bishop, K. S.: The Relations Between Fertility and Nutrition: 1. The Ovulation Rhythm in the Rat on Inadequate Nutritional Regimes. Jour. Metabol. Research, **1**:335–356 (March) 1922.

    Evans, H. M.: Effect of Inadequate Vitamin B Upon Sexual Physiology in the Male. J. Nutrition, **1**:1–21 (September) 1928.
19. Rosenow, E. C., and Meisser, J. G.: Production of Urinary Calculi by Devitalization and Infection of Teeth in Dogs With Streptococci From Cases of Nephrolithiasis. Arch. Int. Med., **31**: 807–829 (June) 1923.
20. Eisenstaedt, J. S.: Certain Tangible Factors in the Etiology of Urinary Calculus. Tr. Chicago Urol. Soc., **1**:65–72, 1931.
21. Keyser, L. D., and Braasch, W. F.: The Etiology of Urinary Lithiasis. Internat. Abstr. Surg., **34**: 1–10 (January) 1922. (Complete bibliography to date.)

    Keyser, L. D.: The Mechanism of the Formation of Urinary Calculi. Ann. Surg., **77**:210–222 (February) 1923.

22. Joly, J. S.: Stone and Calculous Disease of the Urinary Organs. St. Louis, C. V. Mosby Co., 1931.
23. Albright, F.; Baird, P. C.; Cope, O.; Bloomberg, E.: Studies on Physiology of Parathyroid Gland: Renal Complications of Hyperparathyroidism. Am. J. M. Sc., 187:49–65 (January) 1934.
24. Clark, Anson: Ketogenic Diet in Treatment of Urinary Infections. J. Urol., 31:93–204 (February) 1934.
25. Cook, E. N., and Buchtel, H. A.: The Use of Mandelic Acid for Infections of Urinary Tract. Proc. Staff Meet., Mayo Clin., 11:538–540 (Aug. 19) 1936.

Blood Calcium Studies in Urinary Lithiasis*

By C. R. MARQUARDT, M. D.
Milwaukee

WHILE there has been considerable advance in the diagnosis and management of urinary stones, the etiology in many instances remains obscure. Certain factors are known to favor stone formation. Numerous theories have been advanced as causes of urinary lithiasis, but as yet there is no single theory that adequately explains all cases.

Etiology

The geographical and racial distribution of urinary stone has been carefully considered by Eisenstaedt,[1] Racic[2] and Reaser.[3] That there is a preponderance of urinary stone in India, China, and parts of Europe and America, is well-known. The diet, climate, hygiene and water supply of these people has been studied by Joly,[4] but these studies allow for only very generalized conclusions.

Heredity appears to have little influence except in patients with cystine stone as reported by Ewell,[5] Kretschmer,[6] and others.

The frequent association of urinary stasis and stone formation has been stressed by Wesson,[7] Randall,[8] Ravich[9] and others. Ravich is of the opinion it is the primary cause of urinary stone.

It is difficult to ascertain the importance of infection. The association which exists between certain bacteria, particularly the urea-splitting organisms, and stone formation has been stressed by Braasch,[10] Counsellar,[11] Priestly,[12] Mayo,[13] Fowler[14], Peacock,[15] Bugbee,[16] and Randall.[17]

The strongest experimental evidence in support of this theory was produced by Rosenow.[18] In 60 per cent of experimental dogs, he was able to produce kidney stone by injecting streptococci into their devitalized teeth.

The inability of the urinary colloids to maintain urinary salts in solution has been advocated as a cause of urinary stone. To this, with avitaminosis, Joly attributes the cause of stone.

The lack of vitamin A in the diet, and the subsequent formation particularly of calcium phosphate stones has been stressed by Fujimaki,[19] Higgins,[20] Osborne and Mendell.[21] McCarrison[22] observed keratinization in the urinary tract of animals fed on a diet lacking in vitamin A. To this, some observers attribute the cause of urinary stone, while others feel the alkaline infection of the urine subsequent to a lack of vitamin A is responsible for the stone formation. Most observers are of the opinion that the average American diet lacks little in vitamin content, though Jeans[23] has been able to demonstrate that both the urban and metropolitan school children of Iowa have subminimal amounts of vitamin A in their diet.

While Higgins has been able to produce the solution of urinary stones by an acid-ash diet, high in vitamin A content, Lazarus and Rosenthal[24] have not observed a single instance of this unusual phenomena in 121 private cases maintained on a high acid-ash, vitamin A diet. That stone may rarely undergo spontaneous dissolution without any therapeutic effort has been reported by Kearns;[25] Sisk[26] has also reported such a case, and re-emphasized the interrelation of bone disease and the formation of urinary stone.

O'Connor has stressed the formation of urinary stone in patients who have prolonged

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

alkaline management for gastric and duodenal ulcer.

Recently attention has been focused on the relationship of hyperparathyroidism and urinary stone formation by Albright, Aub, and Bauer.[27] Albright[28] divides those cases in which this curious relationship exists into three types, namely:

1. Hyperparathyroidism with nephrolithiasis.

2. Hyperparathyroidism with renal insufficiency.

3. Hyperparathyroidism with a generalized deposit of calcium in various organs.

He conceives of this interrelation as being due to an adenoma or occasionally a simple hyperplasia of parathyroid tissue with a consequent disturbance in the calcium and phosphorous metabolism. It is believed generally that the parathyroids under normal circumstances preserve a normal function of the nervous system and normal muscle contractility, as well as maintaining normal calcification of bone. However, much of the physiology of these glands is unknown as has been stressed by Hanson[29] and others.[30]

Hyperparathyroidism

Hyperparathyroidism occurs most frequently in the female. The clinical picture has been excellently described by Gutman.[31] The onset is usually slow and insidious with a dull ache in the back, legs, or arms. Bone tenderness and swellings, muscle weakness and the development of spontaneous fractures may occur. In late stages gross bodily deformity and loss of stature may be seen. There may be nausea and vomiting, loss of weight, and occasionally abdominal pain. Secondary anemia, nervousness and tachycardia are common. In a small percentage of cases, a palpable tumor may be felt in the neck. X-ray of the bones may reveal a variety of findings, the most common of which are osteoporosis and cyst formation with a generalized decalcification.

Urinary findings were present in 48 per cent of the cases reported by Albright. In one series of twenty-three cases seen at the Massachusetts General Hospital, only five were without kidney involvement. Furthermore, eleven of these twenty-three have kidney disease as the only evidence of hyperparathyroidism. Colby[22] reports an incidence of urinary stones of 61 per cent in the cases he has seen.

Symptomatically there may be polyuria and polydipsia with an increased amount of calcium and phosphorus in the urine. This may not be present if there is marked renal damage.

An increase in the blood calcium above 11.5 mg. per 100 cc. of blood and a decrease in the blood phosphorus below 2.5 mg. per 100 cc. blood is found. Elevation of blood calcium may also be found in multiple myeloma, and in carcinoma with bone metastasis, while failing renal function may diminish the amount of calcium and elevate the amount of phosphorus in the blood.

Barney and Mintz[33] are of the opinion hyperparathyroidism is an etiological factor in 10 per cent of cases of urinary stone, and state that a blood calcium above eleven and a blood phosphorus below 3.5 should always arouse suspicion. However, he concludes, since hyperparathyroidism does not consistently produce stone, particularly bilateral stone, there must be some unknown factor at work in the kidney itself which prevents stone formation in some cases.

Blood calcium values may vary greatly, particularly depending on the diet as has been shown by Bauer[34] and Farquharson.[35]

The normal elimination of calcium in the urine is from 0.1 to 0.2 grams daily or 30 per cent of the total bodily elimination. The normal elimination of phosphorus in the urine is 0.5 grams or 67 per cent of the total. In hyperparathyroidism the elimination of these two substances is considerably increased in the urine.

Serum phosphotase activity may also be of importance. In hyperparathyroidism with bone involvement there is an increase in the serum phosphotase activity above four Bodansky units.

Albright stresses the point that polyuria and polydipsia are present in almost all cases, and feels that hyperparathyroidism is the etio'ogical factor in many cases of urin-

ary stone. He further believes that renal changes commonly occur in this disease producing in particular calcium phosphate stone. Calcium casts are sometimes found in the urine, and occasionally the kidney parenchyma may be sufficiently calcified to be demonstrable by x-ray.

The disease must be differentiated from other factors that are apt to produce urinary stone. It must also be differentiated from other bone diseases, such as senile osteoporosis, Paget's disease, osteomalacia, solitary cysts, multiple mycloma and metastatic malignancy.

The surgical removal of the parathyroids as described by Lahey and Haggart[36] is the treatment of choice. X-ray has been used in one case by Cutler with beneficial results, though Albright feels x-ray therapy has little value.

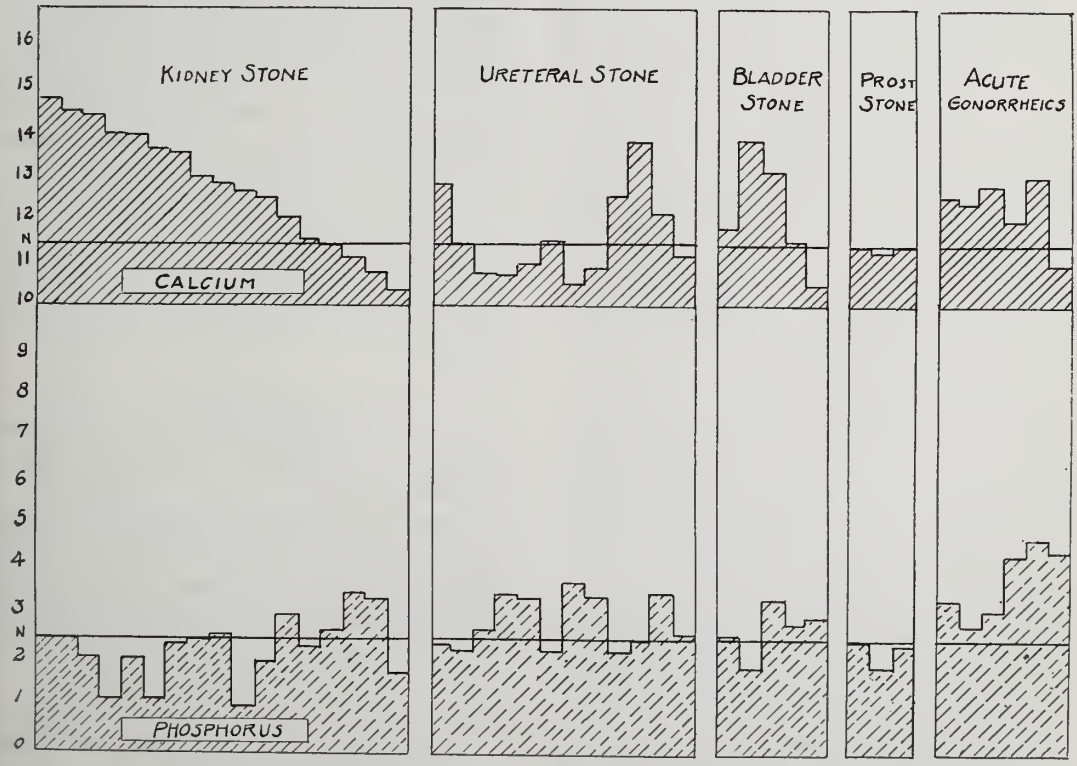
Studies

Interested in the possible etiological significance of hyperparathyroidism in urinary tract stone formation, careful routine studies were made on a series of thirty-seven patients with urinary lithiasis seen in the past two years. There were twenty-four males and thirteen females. The age varied from twenty-seven to sixty-eight with an average of forty-two years. The stone was located in the kidney in thirteen instances, in the ureter eleven times, three in the prostate and ten in the bladder.

Urinary stasis was evident in seventeen instances either by x-ray or cystoscopic study. In this series, the frequent association of urinary stone and stasis was striking and presumptive evidence of the etiological influence of this factor.

Infection was present in twenty-two instances in this series. Every case with demonstrable stasis had infection. Streptococci, staphylococci and colon bacilli were found in that order, and in several instances mixed infection was present.

The urine was strongly alkaline in twenty-two patients and the infection was most marked in those patients with definite urin-



Blood Calcium And Phosphorus – Milligrams Per 100 cc Blood

N-Normal

ary stasis. Of these there were six in whom the urine persisted in alkalinity despite all ordinary medication. In these six patients enormous doses of acidulating drugs, ketogenic diet and even the direct instillation of phosphoric and acetic acid into the kidney, pelvis and bladder was administered without reducing the hydrogen ion concentration of the urine below seven and in two instances below eight.

Of the thirty-seven patients studied, there were two with bilateral kidney stones and in four there was a history of recurrent stone. Hydronephrosis due to kidney ptosis was found once, and in five other instances there was definite obstruction at the uretero-pelvic juncture. Three patients had prostatic obstruction with residual urine, and there were two cases of urethral stricture.

Routine study included cystoscopy, pyelograms, blood chemistry, P.S.P. and microscopic urinalysis with either gram stain or culture. The blood calcium and phosphorus was determined.

Of the thirty-seven patients studied, in twenty-nine the blood calcium was above eleven milligrams. The highest was 14.8 and the lowest 9.4. The blood calcium, therefore, was above normal in 78 per cent. The blood phosphorus was below 3.5 in thirty of these thirty-seven patients. Eighty per cent of the series, therefore, showed subnormal blood phosphorus. The highest blood phosphorus was 3.8 and the lowest 1. The average blood calcium was 12.17 mg., the average phosphorus 2.4. Usually if the calcium was elevated, the phosphorus was low.

The fluid intake and output was studied in each case, but was found in all instances to be within normal limits. In ten patients with blood calcium above thirteen, the bones of the body were x-rayed, but no definite bone pathology was found.

The urine calcium and phosphorus was studied in seven patients with blood calcium above thirteen and blood phosphorus below 2.5. It was found to be variable and elevated. However, when placed on a calcium free diet it dropped to normal limits.

From literature cited above, there is a very clear implication that an elevated blood calcium above 11 mg. and a blood phosphorus below 2.5 mg. constitutes evidence of hyperparathyroidism. That implication is not supported by our studies. On the contrary, we are led to feel that blood calcium and phosphorus, at least in cases of urinary lithiasis, are found varying beyond supposedly normal limits far more commonly than not. So common, in fact, is this variation that we are left in complete confusion as to just what are the limits of normal variation and what if any worthwhile information may be drawn from even admittedly wide variation from normal levels. None of our patients were submitted to surgical exploration of the neck as in none of them were we able to develop dependable confirmatory signs or symptoms to warrant this procedure. Stasis and infection appeared to be the chief contributing causes, and while in some instances neither of these factors was demonstrable, hyperparathyroidism was not clinically evident.

Wilder and Howell[37] have recently reviewed the proved cases of hyperparathyroidism associated with lithiasis and caution against the diagnosis except in well-established cases. They conclude that a lack of vitamin D may be somewhat responsible for this disease entity, and have shown its geographical distribution to be concentrated in the North Atlantic States and parts of Europe. They also conclude, while hyperparathyroidism might possibly be a cause of urinary stone, lithiasis is more probably the result of other concomitant factors such as stasis.

Conclusions

1. A review of thirty-seven cases of urinary stone with blood calcium studies is presented.

2. Stasis and infection appeared to be the chief contributing causes of stone formation.

3. A high blood calcium and low blood phosphorus are not sufficient evidence to support a diagnosis of hyperparathyroidism.

REFERENCES

1. Eisenstaedt, J. S.: Certain Tangible Factors in the Etiology of Urinary Calculus. Surg., Gynec. & Obst., 53:730-734 (December) 1931.
2. Racic, J.: Calculus of the Bladder in Dalmatia, Urol. and Cutan. Rev., 39:158-163 (March) 1935.

3. Reaser, E. F.: Racial Incidence of Urolithiasis. J. Urol., **34**:148-155 (August) 1935.
4. Joly, J. S.: The Etiology of Stone. J. Urol., **32**:-541-577 (December) 1934.
5. Ewell, G. H.: Cystine Nephrolithiasis. J.A.M.A., **99**:2160-2166 (Dec. 24) 1932.
6. Kretschmer, H. L.: Cystinuria and Cystine Stones. J. Urol., **30**:403-420 (October) 1933.
7. Wesson, M. B.: Renal Calculi. J. Urol., **34**:289-295 (October) 1935.
8. Randall, A.: Presidential Address. J. Urol., **28**: 127-132 (August) 1932.
9. Ravich, A.: Critical Study of Ureteral Calculi. J. Urol., **29**:171-185 (February) 1933.
10. Braasch, W. F., and Foulds, G. S.: Postoperative Results of Nephrolithiasis. J. Urol., **11**:525-537 (June) 1924.
11. Counsellar, V. S., and Priestley, J. T.: The Present Conception of Renal Lithiasis. J.A.M.A., **104**: 1309-1314 (April 13) 1935.
12. Priestley, J. T.: Renal and Ureteral Lithiasis. Minnesota Med., **19**:102-105 (February) 1936.
13. Mayo, C. H.: Renal and Ureteral Stones. Internat. J. Med. & Surg., **42**:613-615 (December) 1929.
14. Fowler, H. A.: Coccus Infection of the Kidney. Urol. & Cutan. Rev., **38**:594–605 (August) 1934.
15. Peacock, A. H.: Renal Lithiasis and Infection. Urol. & Cutan. Rev., **38**:650 (September) 1934.
16. Bugbee, H. G.: Recurring Pyelonephritis as an Etiological Factor in Nephrolithiasis. Tr. Am. A. Genito-Urin. Surgeons, **25**:121-131, 1932.
17. Randall, A.: Prevention of the Recurrence of Urinary Calculus. Am. J. Surg., **18**:482-493 (December) 1932.
18. Rosenow, E. C.: The Production of Urinary Calculi. Illinois M. J., **49**:28-33, (January) 1926.
19. Fujimaki, Y.: Formation of Urinary and Bile Duct Calculi in Animals Fed on Experimental Rations. Japan Med. World, **6**:29-35 (February) 1926.
20. Higgins, C. C.: A. Experimental Production of Urinary Calculi. J. Urol., **29**:157-170 (February) 1933.
    B. Experimental and Clinical Observations on Urinary Calculi. New England J. M., **213**: 1007-1012 (Nov. 12) 1935.
    C. Production and Solution of Urinary Calculi. J.A.M.A., **104**:1296-1299 (April 13) 1935.
21. Osborne, T. B., and Mendell, L.: The Incidence of Phosphatic Calculi in Rats Fed on Experimental Rations. J.A.M.A., **69**:32 (July 7) 1917.
22. McCarrison, R.: The Experimental Prevention of Stone in the Bladder in Rats. Brit. M. J., **2**:159-160 (July 30) 1927.
23. Jeans, P. C., and Zentmire, Z.: The Prevalence of Vitamin A Deficiency Among Iowa School Children. J.A.M.A., **106**:996-997 (March 21) 1936.
24. Lazarus, J. A., and Rosenthal, A. A.: Renal Lithiasis. Urol. & Cutan. Rev., **40**:1-8 (January) 1936.
25. Kearns, W. M.: The Complete Dissolution of a Large Renal Calculus. Wisconsin M. J., **34**:179-184 (March) 1935.
26. Sisk, I. R.: Nephrolithiasis and Bone Disease. Wisconsin M. J., **35**:195-200 (March) 1936.
27. Albright, F.; Aub, J. C.; and Bauer, W.: Hyperparathyroidism. **102**:1276-1287 (April 21) 1934.
28. Albright, F., and Bloomberg, E.: Hyperparathyroidism and Renal Disease. J. Urol., **34**:1-7 (July) 1935.
29. Hanson, A. M.: Physiology of the Parathyroid. J.A.M.A., **105**:113-114 (July 13) 1935.
30. Editorials, J.A.M.A., **106**:469 (Feb. 8) and 1566 (May 2) 1936.
31. Gutman, A.; Swenson, P.; and Parsons, W.: The Differential Diagnosis of Hyperparathyroidism. J.A.M.A., **103**:87-94 (July 14) 1934.
32. Colby, F. H.: Urinary Calculi Associated with Parathyroid Disease. Surg., Gynec., & Obst., **59**:210-214 (August) 1934.
33. Barney, J. D., and Mintz, E. R.: Some Newer Conceptions of Urinary Stone Formation. J.A.M.A., **103**:741-743 (Sept. 8) 1934.
34. Bauer, W.; Albright, F.; and Aub, J. C.: Studies of Calcium and Phosphorus Metabolism. J. Clin. Investigation, **7**:75-96 (April) 1929.
35. Farquharson, R. E.; Salter, W. T.; Tibbitts, D. G.: and Aub, J. C.: Studies of Calcium and Phosphorus Metabolism. J. Clin. Investigation, **10**: 221-249 (June) 1931.
36. Lahey, F. H., and Haggart, G. E.: Hyperparathyroidism. Surg., Gynec., & Obst., **60**:1033-1051 (June) 1935.
37. Wilder, R. M., and Howell, L. P.: Etiology and Diagnosis in Hyperparathyroidism. J.A.M.A., **106**:427-431 (Feb. 8) 1936.

DISCUSSION

Dr. N. Warren Bourne (Milwaukee): The study of the blood calcium content in cases of urinary lithiasis has been an important contribution to our knowledge of stone formation. Reports of this nature are very helpful in giving us a better conception of its value.

The number of cases of hyperparathyroidism, which have been proved to be responsible for stone formation, varies from 2 per cent of cases of urinary lithiasis studied at the Mayo Clinic to slightly more than 4 per cent of a series of 288 urinary stone cases studied at the Massachusetts General Hospital. This is a rather small proportion of urinary stone cases, but, even so, is a very important group. If the underlying pathology is not corrected, such an individual will continually re-form stones no matter how excellent his urological care may be.

We believe, therefore, it is important to check the blood calcium and phosphorus in all cases of calcium-containing urinary stones. Barney states that such studies are especially important, when, in addition to calculi, the x-ray shows areas of bone decalcification, bone cysts, etc., or when there is a history of repeated recurrence of stone. It was believed at first that bilateral stone disease was very apt to fall in this group of cases, but this theory has not been substantiated by later reports.

At the last meeting of the American Urological Association, Albright, of Boston, who has done excellent work on hyperparathyroidism, stated he had thirty-five proved cases of this disease. Of these, twelve were urological, eight had bone disease, and fifteen had both bone and urological findings. He believes that a constantly low blood phosphorus is more important than a constantly high blood calcium and also emphasized the importance of the high calcium excretion in the urine in cases of hyperparathyroidism. In questionable cases, it is important to check the blood serum protein; for if this is low, then the blood calcium is really higher than is shown.

In our last thirty-eight cases of urinary stone, we found two cases of elevated blood calcium. One of these showed only a slight elevation and unfortunately was not rechecked, but the other case has had a constantly high blood calcium and low blood phos-

phorus, and lately has shown a small nodule at the isthmus of the thyroid. This case has not come to operation as yet, but we believe it can be classed as a case of hyperparathyroidism.

Dr. Ira R. Sisk (Madison): In the light of our present knowledge it is necessary to admit, I believe, that many factors enter into the formation of urinary calculi. Because of limited time I shall restrict my discussion to Dr. Marquardt's observations on blood calcium and blood phosphorus. The demonstration of the relationship of hyperparathyroidism to renal stone formation is one of the major developments in the field during the last decade. This relationship seems too well-established to be questioned. However, laboratory tests can never be interpreted too strictly.

It has been pointed out by Barney and others that the normal range of serum calcium and phosphorus is rather wide and a single test should not be depended upon. Dr. Marquardt's calcium readings are, as a whole, much higher than ours in individuals with renal stones. They are much higher than the average of the large series reported from Boston. The possibility of correct interpretation of his results would have been greatly enhanced by the report of a series equally as large on normal individuals, establishing thereby the normal for his laboratory, and by the report of two or more determinations on each individual.

At our laboratory at the Wisconsin General Hospital we consider 12 the upper limit of normal. In a review of the last fifteen patients with renal and ureteral calculi on whom these studies were carried out only two were above this normal level of 12. One of these was only 12.2, whereas the other on three estimations showed a serum calcium of 12.9, 12.6, and 13.3 with phosphorus of 2.8, 3.1, and 3.5. The findings in the second of these cases suggest hyperparathyroidism. Personally I have seen only one patient with renal calculi on whom a diagnosis of hyperparathyroidism was definitely established and proved by operation. His serum calcium was 16.5 and his phosphorus 2.5. Barney recently reported thirty-five cases of bilateral renal stone, and in only seven was the calcium over 11.5.

The technique for collecting the blood and making determinations of calcium is so exacting that grossly erroneous findings may follow the use of hard water for washing the needle, syringe, or other equipment or even from contamination of a towel used in drying such equipment.

In conclusion, may I say that I cannot subscribe to as great confusion as Dr. Marquardt indicates exists in this work; but for interpretation one must establish a normal for his laboratory with a large series of known normal individuals; one must have several determinations on suspicious individuals; and one must recognize a rather wide normal fluctuation in both calcium and phosphorus.

The Diagnosis and Treatment of Traumatism and Foreign Bodies in the Urogenital Tract*

By ROBERT IRWIN, M. D.
Milwaukee

THIS paper is based on a review of traumatic injuries to the genito-urinary system observed and treated at the Milwaukee County Hospital and Emergency Unit over a five-year period of time. Severe, crushing injuries are not included. These cases are usually brought to the hospital in extremis and no urological problem is presented. Surgical misfortunes, such as severed ureters and ruptured urethras are not included because of the nature of the accident.

During this period of time from June, 1930, to June, 1935, there were 13,521 accident cases admitted to the above hospital. Of this number, 218 or 1.6 per cent involved the genito-urinary system. There were forty-one bladder injuries, fifty-seven kidney injuries, nineteen urethral injuries and 101 injuries involving the scrotum, testicles and penis.

The bladder injuries including those of the posterior urethra constitute 24 per cent of the genito-urinary injuries and 0.4 per cent of the total number of accidents.

Evans and Fowler[1] state that among 10,867 surgical cases treated at Bethany Hospital in eight years there were only three cases of bladder injury, while only two cases occurred among 16,711 surgical cases admitted to Bartholomew's Hospital in twenty-five years. During the Civil War there were 408,672 surgical cases and not one involved

* Presented before the 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.
From the Department of Urology, Milwaukee County Hospital and Marquette University.

the bladder. Young[2] states that 0.08 per cent of the surgical cases occurring during 1917 and 1918 of the World War involved the bladder.

Of the fifty-three cases involving the bladder and posterior urethra, there were twenty-eight cases of rupture, sixteen of which were vesicle and twelve urethral.

The factors producing the injury and their frequency are as follows:

	Cases	*Per cent*
Crushing injuries to the pelvis with fracture	8	29
Automobile accidents without pelvic fracture	5	18
Straddle injuries	7	25
Blows to abdomen and perineum	4	14
Foreign bodies	1	4
Other falls	3	10

In a series of thirty-six cases of ruptured bladder and urethra reported by Berry[3] in 1930, he found automobile accidents to be responsible for 5.8 per cent while in this series it was responsible for 18 per cent. This figure does not include the automobile accidents in which the pelvis was fractured. Urological textbooks list three more or less common etiological factors in ruptured bladder: goring by a bull, stab wounds and rupture from inebriation. It is significant that not one of the cases in Berry's series nor in ours was due to any of these factors. A point of great importance is the frequency with which ruptured bladder follows fractures of the pelvis. During this five-year period of time there were 193 cases of pelvic fractures, eight or 4 per cent were complicated with rupture of the bladder or posterior urethra. In five of these cases the rupture was urethral and in three vesicle. The rupture due to a foreign body occurred in a male twenty-eight years of age who inserted a lead pencil into the urethra for the purpose of masturbation. The pencil broke and in his frantic efforts to remove it, it was shoved further into the urethra and eventually into the bladder. At operation we found the pointed end of the pencil had pierced the bladder high on its left lateral wall. The operation took place nine hours after the insertion of the pencil.

In the diagnosis of ruptured bladder, the triad of symptoms, tumefaction, bloody urine, with inability to void is very suggestive. However, it is disastrous to wait for tumefaction to take place. Perhaps the most constant and important symptom is the desire accompanied with inability to void. Another fairly constant symptom is suprapubic pain. In nineteen of our cases blood was noted oozing from the urethral meatus. In rupture of the posterior urethra it is usually impossible to pass a catheter, and withdrawal of the catheter is followed by a fresh hemorrhage. In our experience the use of the cystoscope in attempting to make the diagnosis is a useless procedure. The rather common practice of injecting a certain amount of fluid into the bladder and attempting to withdraw an equal amount is also a useless and even dangerous procedure. The diagnosis can be made without instrumentation. The history and physical examination are of first importance. Blood in the urine, suprapubic pain and a constantly empty bladder are sufficiently positive signs and symptoms to warrant the diagnosis.

In this series of twenty-eight cases there were nine deaths or a general mortality of 32.14 per cent. Four cases were not operated upon, one refused operation, two died in shock before operation could be performed, and in one the diagnosis was made after death. The operative mortality is 20.8 per cent. Of the five operative deaths, three were due to general peritonitis and two to urosepsis.

An analysis of 504 cases of vesicle injury by Bartels[4] in 1878 is considered an excellent summary of the situation before the advent of modern surgery. Practically all of the cases in his series were treated with an indwelling urethral catheter. Operation was not attempted until the development of late complications resulting from extravasation. The total mortality for his series was 45 per cent. There were 131 cases in which the peritoneum was involved and in this group every case but one died. Stirling[5] reports seven cases which he operated upon with but one death. He reviews the literature and states that in cases of delayed operation, twenty-four hours or longer, the mortality rate is about 80 per cent, and in cases operated upon early the mortality is about 40 per cent.

In the treatment of ruptured bladder, first consideration must be given to shock. This is best accomplished by external heat, intravenous glucose, blood transfusion and other general supportive measures. Following this suprapubic cystotomy is indicated. Delay in the recognition or treatment will probably be fatal.

Injuries to Kidneys

There were fifty-seven injuries involving the kidneys. These injuries constitute 26 per cent of the genito-urinary injuries and 0.42 per cent of the total number of accident cases. Of these cases there were seven or 12 per cent in which the diagnosis of rupture was confirmed by x-ray findings.

Injuries to the kidneys by rupture have been classified by Hinmann[6] as follows:

1. Tears in the fatty capsule without injury to the kidney.
2. Contusions of the kidney.
3. Rupture of the parenchyma usually on its posterior surface.
4. Rupture of the parenchyma and capsule.
5. Rupture of the parenchyma, capsule, and pelvis.
6. Rupture of the parenchyma with rupture of the peritoneum.
7. Rupture of the vascular pedicle and tearing off of the ureter.

The mechanism by which rupture of the kidney occurs was studied experimentally by Küster[7] in 1896. The kidney acts as a ball of fluid and the impact is transmitted in all directions. The traumatic force may be direct or indirect. Where the force is indirect there is probably associated with it a sudden contraction of the powerful abdominal muscles. Rarely, muscular action alone may be responsible and is attributed to a sudden contraction of the diaphragm or of the abdominal muscles.

The vast majority of these injuries (50) may be classified as slight or minor contusions. Of the remaining seven cases there was one in which the parenchyma, capsule and pelvis were ruptured. This case was a female nineteen years of age brought to the hospital in a state of acute alcoholism. No history of injury was obtained and there was no external evidence of injury. Eight hours following her admission to the hospital she was catheterized and the bladder found full of bloody urine. Cystoscopy showed bright blood spurting from the right ureteral orifice and a retrograde pyelogram revealed a ruptured kidney with extensive extravasation of the dye. She was observed for twenty-four hours, keeping a careful check on the blood pressure and pulse. On the morning of her third hospital day signs of shock were noted. There was a sharp drop in the blood pressure and a marked increase in the pulse rate. The urine remained grossly bloody. Nephrectomy was decided upon and performed by Dr. James C. Sargent. At operation the lower pole of the kidney was found completely severed by the rupture.

There were two cases in which the parenchyma and capsule were ruptured and four in which the parenchyma was ruptured. None of these cases required surgical intervention.

The diagnosis is usually made on the history of injury involving the renal area and hematuria. In every one of these cases hematuria was present. There is usually some external evidence of injury such as contusions or abrasions, however, the absence of these external injuries does not exclude renal injury. The most damaging rupture in this series presented no external evidence of injury. The use of intravenous pyelography is of much value in making the diagnosis and is highly recommended by Sweetser.[8]

In discussing the treatment of renal injuries, it is necessary to differentiate the slight from the severe. The great majority of the injuries in this series were slight and nothing more than careful observation and general supportive treatment is indicated. The blood pressure and pulse rate should be recorded every hour until one is convinced the injury is slight. In the more serious injuries intravenous glucose and blood transfusions should be administered.

If the blood pressure and pulse remain near normal and the blood gradually disappears from the urine nothing more in treatment is necessary. However, if the pulse rate increases and the blood pressure decreases and

there is evidence of shock, immediate surgical interference is indicated.

There were 101 injuries involving the testicles, scrotum, anterior urethra and the penis; thirty-nine involved the scrotum, twenty-two the testicle, seven the anterior urethra and thirty-three the penis. These injuries constitute 46.3 per cent of the genito-urinary injuries and 0.74 per cent of the total number of accidents.

Injuries of the scrotum are the most common in this group and are as follows: lacerations fifteen, contusions and abrasions nineteen, and there were five traumatic hydroceles. There was one death in this group due to gas bacillus infection.

Of the twenty-two injuries involving the testicle there was one in which the testicle was macerated, the result of being struck with a baseball; there were eighteen cases of traumatic orchitis, and three cases of self-inflicted castration, one bilateral.

There were seven injuries involving the urethra anterior to the triangular ligament. Two of these cases were ruptures, both the result of straddle falls. There were five minor lacerations or abrasions all the result of foreign bodies inserted into the urethra for purposes of masturbation.

Injuries involving the penis are as follows: Lacerations thirteen, contusions nine, abrasions seven, and there were four frost-bites all occurring during the winter of 1936.

Conclusions

1. One and one half per cent of all accident cases in this series involved the genito-urinary system.

2. Cases of ruptured bladder require immediate surgical interference.

3. In cases of ruptured kidney, surgical interference is seldom indicated. Eighty-six per cent of the serious renal injuries in this series recovered on general supportive measures.

4. Rupture of the bladder should receive immediate consideration in every case of pelvic fracture.

5. Injuries involving the bladder and injuries involving the kidneys occur in practically the same frequency.

6. Injuries of the external genitalia occur twice as frequently as injuries of the bladder and kidneys.

REFERENCES

1. Evans and Fowler: Puncture Wounds of the Bladder. Am. J. Surg., 42:215–241, 1905.
2. Young, H. H.: Practice of Urology. Vol. II., Chap. X, p. 156.
3. Berry, N. E.: Traumatic Rupture of the Bladder and Urethra. A report of 36 cases, Canad. M. A. J., **22**:475 (April) 1930.
4. Bartels, M.: Quoted by R. C. Graves. Lewis Practice of Surgery, Chap. XIII.
5. Stirling, W. Calhoun: J. Urol., **17**:503 (May) 1927.
6. Hinmann, F.: Renal Injuries. Principles & Practice of Urology, pp. 1007–1010, 1935.
7. Küster: Archiv für Chirurgie, **1**:676–686.
8. Sweetser, T. H.: The Management of Kidney Injuries. Minnesota Med., **18**:283 (May) 1933.

DISCUSSION

Dr. S. J. Silbar (Milwaukee): A statistical study of any subject is always interesting. It very often belies the supposed truths, and makes suppositions truthful. The total urological injuries as given in Dr. Irwin's paper present an interesting observation. The injuries involving the scrotum, testicle and penis, otherwise the external genitalia, are almost one half the total combined injuries. This is doubly interesting because one finds that parts of the body, which are not fixed, are less likely to injury than those which are immobile; and that they that are fairly well protected, lying as they do in the groin, should preclude injury.

It was my privilege recently to see two cases, which are not included in Dr. Irwin's paper, namely, tortion of testicle. Both cases had no force directed to, or near the scrotum. The first case, a fireman at a recent fire, in pulling up a hose over his shoulder, felt a sharp pain in his right groin. After the fire he noticed a swelling and marked tenderness in the right testicle. We saw him twenty-four hours later. Upon operation the entire testes, epididymis and tunica had twisted about twice, forcing two turns in the cord. Sebileau and Descamps describe this tortion as the tearing of the loose areolar connection between the exterior surface of the tunica vaginalis and the scrotal tissues. This allows for freedom of the testicular mass and rotation easily occurs.

The second case was that of a motion picture operator, who lifted a box of films weighing about sixty pounds. He felt a sharp pain in his right groin, which caused extreme nausea. We saw him forty-eight hours later with a swollen tender scrotum, the size of a small grapefruit, which transilluminated light. Upon operation the epididymis had twisted free from the testes and had wrapped the long mesorchium about the testes twisting the spermatic cord with it.

Both cases illustrate a rather rare condition, which is seldom diagnosed as such. The first or extravaginal type is less common than the second or intravaginal torsion.

Symptoms are sudden onset with severe pain, immediate swelling, starting with testicle, and later entire scrotum becomes involved. Constitutional symptoms may occur with prostration, abdominal distention and vomiting.

Diagnosis is made from acute epididymitis, strangulated hernia.

It is needless to state that forty-eight hours was possibly too long to wait for the return to normal in either case, but we were fortunate in that both patients recovered intact.

The diagnosis of a ruptured bladder is not always simple. It is an accepted fact that manipulation of a bladder which is possibly ruptured is not the best urological practice. The entrance of a cystoscope or catheter may carry with it bacteria which are not wanted in the nondraining viscus. We have used a very simple method on a few cases, that is, the injection of an intravenous dye of some of the accepted Hippuran compounds, and by taking films at various intervals one can observe the increase of shadow rising in the abdominal cavity, as the media spreads through the peritoneal cavity. This also gives an inkling as to where the bladder is ruptured.

Heterophoria; Incidence of, in Routine Refractions With an Analysis of 2,000 Cases*

By HILMAR G. MARTIN, M. D.
Milwaukee

TO ESTABLISH the incidence of heterophoria in routine refractions, I analyzed a series of 2,000 cases, separating them into the various common muscle anomalies as shown in the chart.

In my series of cases 74 per cent manifested heterophoria, or 522 showed no imbalance. One thousand three hundred forty were hyperopes and 660 myopes,—hyperopia being twice as frequent as myopia in this series.

Of the hyperopes, for distance, 339 showed esophoria and eighty-nine exophoria and 494 showed duction anomalies. In other words, esophoria was almost four times as frequent as exophoria for distance and almost one third of the total number of hyperopes showed some duction difficulty. For near, exophoria occurred more frequently than esophoria—354÷198.

Of the myopes, for distance, esophoria was predominant over exophoria by less than 2:1 and duction anomalies were manifest in one half to one third of the total number of cases. For near, exophoria was decidedly predominant over esophoria in the proportoin of 3:1, whereas, the hyperopes showed less than 2:1.

Many cases showed combinations of muscle imbalance, even orthophoria for distance and imbalance for near or conversely. Some of the hyperopes showed esophoria for distance and definite exophoria for near in the same case.

It is interesting to note that one out of every three hyperopes showed imbalance for distance and the identical proportion holds for myopes.

For near one out of every 2.4 hyperopes showed imbalance, whereas, one out of every 2.3 of the myopes showed imbalance of either exophoria or esophoria.

Paralytic strabismus was encountered in fifty-three cases, and non-paralytic strabismus in 198. There were 167 cases of oblique imbalance and 499 of purely supra- and infra-duction anomalies. Of the 425 hyperphorias, 238 were of the left and 187 of the right variety.

Re-examination of patients who manifested heterophoria disclosed that imbalance was corrected or decidedly improved in 795 hyperopes and 437 myopes by refraction alone.

Unimproved, then, were 185 hyperopes and sixty-one myopes, a total of 246. Therefore, only 16 per cent of those showing heterophoria required treatment other than, or in addition to purely refractive corrections, and this figure includes the paralytic cases as well.

Total cases	2,000
No imbalance	522
Imbalance	1,478

* Presented before Milwaukee Oto-Ophthalmic Society.

	Hyperopes	*Myopes*
Total cases	980	498
Improved by refraction	795	437
Unimproved	185	61

Total unimproved—246 or 16 per cent required further treatment.

The predominance of exophoria over esophoria for near in myopes is explained on the premise that myopes require little or no accommodative effort for near and consequently the convergent stimulus is weak.

In this series esophoria is seen to predominate over exophoria for distance in myopes. Myopes with esophoria have a convergent excess or divergent insufficiency or the combination. Esophoria for distance may be explained on the basis that for close work a definite amount of convergence is necessary, which must to a degree become habitually developed, producing a relative convergent tendency. It is possible that a long-continued convergent exertion is also carried over in effect for distant application, favoring esophoria.

In other words, in cases where accommodation is not used normally, the convergent stimulus is still exerted tending to a disproportion, and the greater the demand for separate convergence, the greater the separate tendency is to convergent excess—the influence of which is carried over for distant fixation.

It is conceivable that constant over-stimulation of either one of the centers necessary to maintain muscle function to satisfy visual requirements in any given case can be the point of origin of muscle anomalies.

The fact has been observed repeatedly, in rapidly growing children who manifest a steadily progressive myopia, that the status of muscle balance previous to this also tends to hold over, showing definite esophoria with definite myopia, possibly from a continuance of overactive adduction persisting to the extent where the normal position of rest is finally affected. Duane mentions strabismus of convergence in myopes which develops later than the usual convergent strabismus of childhood.[1]

Any great variation in the relationship between accommodation and convergence tends to disturb normal lateral balances. Also, the differences in amount of muscle effort expended in relation to the total amount of muscle function possible is important—either of accommodation or convergence. If the amount of muscle function in constant

HETEROPHORIA SUMMARY

Total: 2,000

Hyperopia 1,340					*Myopia* 660				
Distance 428			*Near* 552		*Distance* 212			*Near* 286	
Es.	*Ex.*	*Duction*	*Es.*	*Ex.*	*Es.*	*Ex.*	*Duction*	*Es.*	*Ex.*
339	89	494	198	354	133	79	269	82	204
4 :	1	1:3	2 :	3.5	2– :	1	1–1.5:3	1 :	3

Total 2,000		*Imbalance* 1,472	*No Imbalance* 522	*Corrected by Refraction* 1,232
	Distance	1 :	3	
Hyperopes 1,340				795
	Near	1 :	2.4	
	Distance	1 :	3	
Myopes 660				437
	Near	1 :	2.3	

Strabismus 251		*Hyperphoria* 425		*Oblique Imbalance* 167	*Supra- & Infra-duction* 499
Paralytic 53	*Non-paralytic* 198	*Left* 238	*Right* 187		

use approaches too closely to the maximum amount of which it is capable in this direction, symptoms will present. A refraction should be regulated to favor correction of imbalances as well as to correct the visual error.

Treatment

The ability of sustained muscle effort is an individual matter and in great measure is a reflection of general muscular tonus.

It is well to bear in mind that within certain limits the accepted normal admits of variation and we are not justified in routinely correcting every case up to a defined mathematical status arbitrarily considered normal.

Bielschowsky says that at least 80 per cent of all healthy people show heterophoria, the majority esophoria, in patients who do not complain of eye strain or other ocular disturbances.[2]

Since the incidence of heterophoria in routine refractions is high, proper attention to this phase in treatment is important as heterophoria is one of the etiological factors of strabismus. Heterophoria and certain types of strabismus are really only an expression of degree of abnormal muscle functions.

Duane says that the conversion of heterophoria into a divergent or convergent squint occurs regularly and the squint is to be regarded as the final outcome of a series of distinctive efforts on the part the patient makes to avoid diplopia and confusing images.[1]

It is well to mention that some cases show a normal divergence together with an abnormally strong convergent muscle action, giving the divergent set a relative weakness, although they are actually normally strong.

Summary

Heterophoria occurred in 74 per cent of a series of 2,000 routine refraction cases.

Of the total number of cases showing heterophoria only 16 per cent (including paralytic strabismus) required treatment other than, or in addition to, refractive correction.

Heterophoria, and certain types of strabismus, represent an expression of degree of muscle imbalance, and heterophoria is an etiological factor in the production of strabismus.

REFERENCES

1. Duane: Fuch's Textbook of Ophthalmology, fifth edition, 1917, p. 787.
2. Bielschowsky, A.: Divergent Excess, Arch. Ophth., No. 2, **12**:157 (August) 1934.

Syphilis in Wisconsin*

By W. F. LORENZ, M. D.
Madison

THE surgeon general of the United States Public Health Service has aroused a nationwide interest in the prevalence of syphilis. The daily press has voluntarily enlisted itself in a campaign to inform the public. Reports, more or less accurate, have appeared from time to time, and quite recently Wisconsin was cited as having accomplished more in lowering the incidence of syphilis than any other state in the Union. In view of this general publicity, I believe it is a good time to acquaint the medical profession of Wisconsin with certain facts that we are able to report from our records.

About twenty years ago the Wisconsin Psychiatric Institute, shortly after it began to function, undertook to make Wassermann tests and cerebrospinal fluid examinations for all physicians and institutions of Wisconsin without cost. This work was undertaken as a practical effort in mental hygiene. We knew, from previous investigations, that approximately 13 per cent of insanity in Wisconsin was directly due to syphilis. It was also well-known that a large percentage of our general sick were cases in which syphilis was the original cause for many serious forms of illness leading to permanent impairment, such as locomotor ataxia, cardiovascular disease, arteriosclerosis, blindness, etc.

* From The Wisconsin Psychiatric Institute, University of Wisconsin.

Over twenty years ago we maintained that if provisions were made to assist the physician in the early diagnosis of syphilis, he would treat the case promptly and effectively. Such prompt and early treatment would materially reduce the various forms of late syphilis resulting in state care or serious impairment. It was also pointed out that with prompt and early treatment the likelihood of new infections by contact would be reduced.

This would seem to be a good time to check our results and ask ourselves quite frankly, has the Wassermann and spinal fluid service in Wisconsin proved worth-while? Have the physicians contributed their part in the campaign to attack this disease started over twenty years ago? Is there any demonstrable result from this combined effort comprising the State Department of Health, the physicians in practice, and our serological service? I believe the answer is an unqualified "yes" and will attempt to report the basis for such a conclusion.

Before going into the data upon which we must rely for our judgment, I wish to report that up to the present time we have performed well over one million complement fixation tests on blood and cerebrospinal fluid. From private practitioners alone we have received, since 1915, over 800,000 specimens of blood and over 27,000 specimens of cerebrospinal fluid. From the state institutions during this same period of time we received over 120,000 specimens of blood and over 13,000 cerebrospinal fluids.

To these must be added over 50,000 tests made on our own clinical cases, the almost continuous researches aimed at making our procedure clinically reliable, our numerous comparative investigations with other methods of serodiagnosis, the vast amount of complement fixation studies made in the study of experimental rabbit syphilis and, finally, the 2 per cent of specimens received in the mail that are hemolyzed or anticomplementary. These latter blood specimens are not serviceable but this fact cannot be determined until the test has been completed. Incidentally, these unusable specimens are much more numerous during the winter months probably because of freezing and thawing while enroute. I cite these additional examinations made by us because they do not appear in the tables or charts shown in this report.

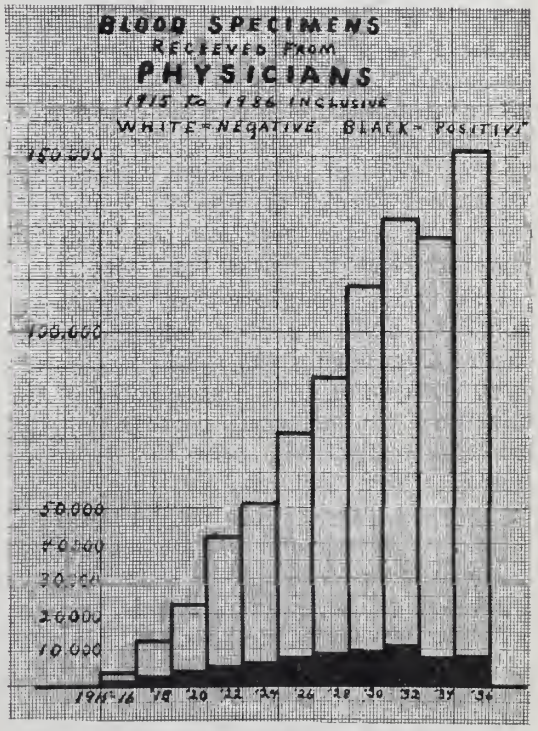
Table I shows the total number of blood specimens received from the medical profes-

TABLE I

Number of blood specimens received from physicians in private practice during period from 1915 to 1936, inclusive, showing negative and postive cases and percentage of persons with active syphilis in relation to total number examined.

2-Year Period	*Total Cases*	*Positive Cases*	*Per cent Persons with Active Syphilis*
1915–1916	2,350	477	10
1917–1918	12,348	2,887	11
1919–1920	21,952	3,614	8.2
1921–1922	41,053	4,557	5
1923–1924	50,514	6,201	6
1925–1926	70,228	7,445	5
1927–1928	87,222	7,712	4.4
1929–1930	113,566	9,797	4.2
1931–1932	132,503	10,748	3.8
1933–1934	127,759	8,830	3.6
1935–1936	151,600	8,936	3
	811,095	71,204	

CHART I



Graphic representation of data contained in table I. The black portion of each column represents the relative number of positive specimens. The percentage figures are persons with active syphilis. (See table I.)

sion of Wisconsin, recorded for each two-year period, beginning with 1915-16 to 1935-36, inclusive.

In chart I these data are shown in the form of a graph. Each column represents a biennial period. The black portion of each column represents the relative number of positive specimens. The percentage shown at the bottom of the graph refers to the ratio of persons with active syphilis in the total number examined for each two-year period.

Syphilis in General Sick

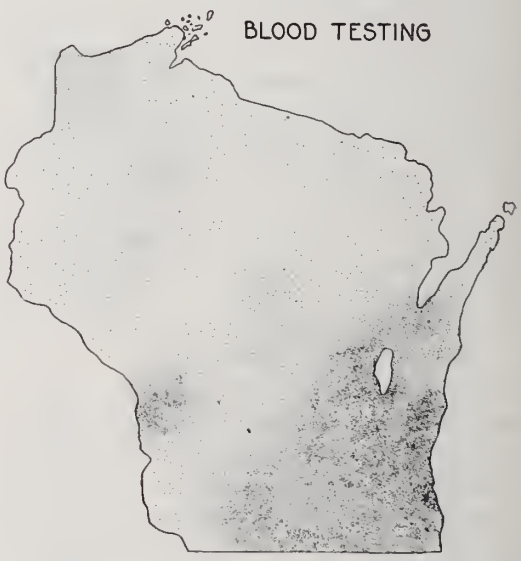
We have gathered much information from this vast number of examinations made on a large number of persons residing throughout the State of Wisconsin. A study of our records shows a distinct improvement. In the case of mental diseases due to syphilis, the reports from the two state hospitals show a 60 per cent reduction. Our records are becoming valuable because of the period of time covered and the large numbers concerned. Our figures are no longer mere samples but tend now to become nearly an accurate finding as to the prevalence of syphilis in Wisconsin today. However, in arriving at conclusions it must be held in mind that our information applies to the whole State, excepting the city of Milwaukee. Milwaukee County has carried on its own laboratory service and makes much less call upon our laboratory than the rest of the State.

Not only have we information from the examinations made for physicians in private practice but, during the same twenty odd years, we have made a large number of examinations for the penal, correctional and charitable institutions under the Board of Control. From both sources, that is, the physicians in private practice and the institutions, we have received over one million blood specimens drawn from approximately 950,000 individuals. Added to this, we have made 27,691 cerebrospinal fluid examinations for physicians, and 13,522 for state institutions.

The greatest volume of work has been carried on during the last six or seven years. The demand for this service by physicians and state institutions has steadily increased from the beginning and each succeeding biennium shows a still larger number (excepting 1933–34). We have not yet, by any means, reached the peak and we are prepared and expect an increasing demand in the future.

At no time in the twenty-one years that this service has been made available by the Wisconsin Psychiatric Institute have we limited in any manner the physician or institution. Both repeatedly have been informed to submit as many specimens of blood or cerebrospinal fluid as was thought necessary for clinical needs. However, this invitation to partake without restriction of any kind was by no means easy to fulfill during the last five or six years when our available funds were ruthlessly cut over 25 per cent, and at a time when the demand for service was increasing at a tremendous rate. (See charts I and II). We just about weathered that storm.

CHART II



EACH DOT REPRESENTS FIVE SAMPLES TESTED IN ONE YEAR

This chart shows the distribution of our Wassermann service in the entire State. Each dot represents five bloods examined in 1935. The heavily-shaded portions conform quite accurately with concentration of population. Since Milwaukee County has approximately one third of the population of the State, if an equal amount of service was being requested from that county, accumulation of spots would mark this area as a complete black. These spots represent all bloods, both negative and positive. The widespread character of the Wassermann service is evident and apparently touches every area in the State.

It is clearly evident that the physicians no longer limit the testing of blood for syphilis to cases where syphilis is suspected. Gradually the practice is moving in the direction of taking a blood specimen in any form of sickness whatsoever. This is obviously a move in the right direction. Every physician who has carried on this practice has discovered unsuspected cases.

In table I is shown the actual number of blood specimens received from physicians in private practice. In the first two-year period, that is, from 1915 to 1916, we received 2,350 blood specimens from physicians. From then on, due in a measure to our sincere desire to make this service convenient, reliable and valuable to the physician, the number of specimens shipped to us from all over the State, excepting Milwaukee County, increased very rapidly. Every two-year period shows a substantial increase in numbers, excepting 1933–34. In the last biennium, 1934–36, we received from physicians alone 151,600 specimens of blood.

The number of blood specimens that were positive for syphilis are also shown in table I. Since these figures represent blood specimens, it is necessary to estimate the number of examinations that were repeated in an individual case in order to arrive at some information as to the number of persons from whom these blood specimens were taken. This is not so simple, and I must explain why we are unable to accurately report the actual number of persons in whom these tests were made. At the outset of our efforts we sought to remove every possible obstacle to the free and complete use of our laboratory service. We were aiming to assist the physician to find syphilis wherever it might exist. We, therefore, informed the physicians that it was not necessary to report the patient's name. He could use any means of identification that would serve his purpose. We were not concerned in making any record that would identify the individual. The stigma associated with syphilis was still a barrier twenty odd years ago. At that time it was still a badge of immorality or sexual promiscuity. We believed that if identification of individuals was insisted upon that many would not avail themselves of our service and thus we would be less likely to succeed in our aim. Furthermore, we regarded our work as a truly confidential service available to a patient through his physician. We, therefore, filed all our retained reports under the name of the physician or institution that submitted the specimen. We never have reported the result of a test to any person other than the physician who submitted the specimen. We never report to a patient unless authorized by the physician under whose name the case is filed. We have refused to report the result of an examination to any other physician who may subsequently handle the case unless authorized by the original physician. In short, we have preserved every standard of ethical practice that is advocated by the medical profession.

Because of our policy in this respect, we are unable to accurately determine whether or not a certain individual has had one, two or more tests made. In many instances, physicians have submitted additional specimens from the same person but under another name, suspecting that we at the laboratory were guided in our reports by the results of previous examinations. I might state that this is an entirely unnecessary test of our veracity because we simply report a reaction that occurs in a test tube and do not presume to make a diagnosis. No effort whatever is ever made to have a report agree with some former report even if the latter were known. Because of the policy of requiring no identifying name, we cannot, with absolute accuracy, report the total number of persons who have been tested. However, there are enough cases in which the name is given to permit us to at least estimate the frequency in which repeated tests are made upon the same individual. I have, therefore, analyzed a large number of positive cases because repeated examinations are obviously much more likely in this group. As a result of this analysis, I find that on an average, a positive case has slightly under two tests per year. Therefore, in arriving at the number of persons in whom this positive blood was found, the number of positive specimens reported in table I must be divided in half.

The number of negative blood specimens approximates the actual number of persons examined. With the present tendency toward routine blood examinations, a negative finding calls for no repetition. The number of previously positive cases that may later appear on the negative side is relatively small, so with these possibilities of slight error, practically insignificant because of the large numbers concerned, it is interesting to note a general trend in our record of twenty years.

During the first biennium the percentage of persons having active syphilis, according to our laboratory tests, was 10 per cent. The following biennium, 1916–18 it was 11 per cent. In the succeeding two-year periods the percentage falls off steadily until we reach the lowest figure of 3 per cent in 1934–36.

However, one must be careful in generalizing from these data. Without doubt, in the beginning the physicians took blood only from cases in whom syphilis was suspected or evident. In the succeeding years the blood test was used more and more without regard to clinical suspicions. I believe that from 1930 on to the present time we can view our figures as representing a sort of general syphilitic survey on sick people. The 3 per cent would then signify the incidence of syphilis among the sick. If we had an equal number of persons tested in the same manner but gathered from the healthy or physically normal group, this ratio would be still further reduced. From these data I believe we can conservatively report that the incidence of syphilis in the State of Wisconsin is less than 3 per cent.

The Wisconsin State General Hospital offers another opportunity to estimate the prevalence of syphilis in the State of Wisconsin. This hospital, situated at Madison, receives patients from the entire State, excepting Milwaukee County. These patients come from every social and economic stratum found in our population. The wealthy and less well off are represented in approximately the ratio found in our whole population. Every vocation, profession and occupation are represented. In short, this patient group is practically a condensation of our general population.

The medical conditions leading to hospitalization range over the entire field of medicine. The age range in these patients is from the newborn to those well advanced in life. The number of admissions is relatively large. We have, therefore, at this hospital a collection of sick which amounts to a very sizable sample of the general sick in our State.

For several years past, every newly admitted patient has had a routine blood test made. I have analyzed merely the admissions for 1936. In that year 5,678 patients were admitted to the Wisconsin State General Hospital. Of these, 217 show a positive complement fixation for syphilis. This represents 3.8 per cent of the total number admitted.

The percentage (3.8) found in this group compares very favorably with the 3 per cent found in the 150,000 patients who were tested for private practitioners throughout the State in 1935–36.

The prevalence of syphilis among the patients admitted to the Wisconsin State General Hospital is considerably augmented by our very active department of neuropsychiatry. There were 798 persons admitted to this department in 1936. When this group is taken separately, I find the incidence of syphilis to be 8 per cent. The vast majority of these are patients with early neurosyphilis. They have not yet reached the stage of a psychosis and, excepting in a few instances, do not appear among the admissions to our state hospitals.

From both sources, that is, the sick handled by private practitioners and the admissions to the Wisconsin State General Hospital, we find the incidence of syphilis among the sick to be approximately 3 per cent at the present time.

Syphilis in Certain Groups

It is well-known that certain groups and certain classes show a relatively high incidence of syphilis and other groups a low incidence of syphilis. For example, Dr. Parran estimates one half of 1 per cent among University students and the rural midwestern population at 1½ to 2 per cent. Stokes and

Bremmer report 11.7 per cent in railroad employees. Sick in general hospitals range from 5 to 25 per cent. The Rosenwald Foundation reported 20 per cent incidence in southern negroes. The criminal groups show a higher rate than the general population. Our own findings covering a very large number of cases incarcerated in penal and correctional institutitions over the course of twenty years is especially enlightening on that point.

Parran estimates the annual crop of new cases of syphilis in the United States at 871,000. This is approximately 1 per 200 of population. If that ratio were applied to Wisconsin we should have 15,000 new cases each year. The data collected at our laboratory does not support such an estimate for Wisconsin, at least not during the last fifteen years. From information we are able to gather in the course of our service to the medical profession, I would estimate our annual crop of new cases at 2,000. But, considering that these are in a communicable stage of the disease, we have no reason to feel secure.

Whatever advantage Wisconsin has enjoyed as a rural midwestern community has disappeared in the last two decades because of modern transportation. I, therefore, believe that the better conditions found in our State today must be attributed to the efforts that have been made during the last fifteen or twenty years by the medical profession, the state and municipal health authorities and our laboratory service. The following case illustrates this point:

In 1932 the health department of the city of Racine asked us to keep a separate record of all examinations made on specimens received from Racine. From 1932 to 1936 we made 12,653 blood tests for physicians practicing in that city. Of these 792 specimens were positive. I sought as well as I could to determine how many persons are represented in this number of blood specimens. Repeated examinations appear mostly among the positive specimens. The average is slightly over two tests per person per year. I therefore estimate approximately 400 persons with active syphilis in a period of five years. In so doing I am counting every case as a new case and making no allowance for some cases that continued positive throughout this five-year period; in short charging up against this community the largest rate possible from our records. Racine has a population (1930) of 67,500. Four hundred cases gives a ratio of 0.6 per cent for this city by totalling all active syphilitic cases for a five-year period. That an equal or possibly greater number may still be present in the population from an earlier period must be conceded. Nevertheless, when we apply the rate of new syphilis estimated by Parran for the whole United States, Racine is remarkably free of syphilis. Parran estimates one new case of syphilis annually for every 200 persons in the United States. If Racine had its quota there should have been 1,675 cases in five years, instead of which we found not more than 400. Furthermore, it is very likely that some of these syphilitic cases came from a considerable territory surrounding the city. If so, the rate attributable to Racine as a city would be still lower.

This finding is remarkable because Racine is an industrial city, close to Chicago, and enjoys none of the so-called rural advantages insofar as syphilis is concerned.

A Plan for Wisconsin

If it is a fact, and our experience at this central laboratory certainly supports such a conclusion, that Wisconsin has less syphilis than is found in the United States generally, then why not make a further strenuous effort to finish a job that promises to end with success. We appear to be near enough to our goal to justify even greater measures to relieve ourselves of this terrific public burden. Complete eradication is possible in Wisconsin. To accomplish this requires first of all a well-organized effort to discover the persons in our general population who are infected. Because the vast majority are unaware of their disease, they serve as a reservoir from which a constant stream of infection arises. To find these unfortunate persons the medical profession must take blood for testing whenever possible; not only the sick but the healthy as well.

We could easily handle the additional load. A few extra technicians, some more rather inexpensive apparatus, a few thousand guinea pigs, several hundred more rabbits and one or two extra sheep is all we need at the laboratory. At the present time we average over 300 tests daily. An extra thousand per day is perfectly practical from a laboratory standpoint. If such a program could be put into effect it would mean that practically every person between the ages of fifteen and fifty would be examined in the course of three years.

The medical profession is on the front line in this battle. Another good assault will mean victory. Syphilis is strongly entrenched by innocence and ignorance. Only the physician can successfully surmount these two barriers. Our campaign must continue along the lines already adopted in Wisconsin, and if those out in the field will be constantly alert to submit specimens of blood whenever possible, we at the laboratory will make the tests and in that manner the reservoir of infection within our general population will be gradually discovered.

The cost involved for such an additional effort would not be prohibitive from the laboratory standpoint. We have devised some special apparatus that facilitates the making of complement fixation tests. These are in the nature of labor-saving devices that result in greater speed and accuracy. It costs approximately four cents per test on the scale of our present operation. Included in that cost are the salaries for technicians, the material, chemicals, glassware, etc. It does not include heat, light and administrative overhead. I, therefore, estimate that with an additional appropriation of approximately $12,000 a year this tremendous drive upon syphilis could be made. I am absolutely certain of being able to carry out such a laboratory program on the scale mentioned. It would really be an extraordinary thing if some such an effort were made and the 70,000 odd infected people in the State of Wisconsin were discovered and treated. Conceivably a stage might be reached when syphilis is negligible excepting for the transient case.

If we did finally succeed in ridding ourselves of syphilis in Wisconsin, and it can be done, might we not put up some sort of a barrier to prevent future infection from the outside? Of course, a transient visitor could not be excluded as a practical matter, but the prospective permanent resident might well be required to show himself to be free of this disease. We quarantine ourselves against blights and noxious weeds. We guard against "reactors" in cattle; we protect our Flora and Fauna, why not include Homo sapiens? We adopt drastic regulations to protect ourselves from many communicable diseases. Why not then this disease which is not only communicable but responsible for a very heavy tax on society in general? I believe that 60 per cent of syphilis is innocently contracted. Immorality is not a sine qua non of syphilis. The wife and children are guiltless. Our only rational attitude toward this disease should be to class it with all other communicable diseases and adopt a program of eradication and prevention.

In State Institutions

Thus far, I have discussed the incidence of syphilis in our general population. There now remains for consideration the incidence of syphilis in our institutional population. In the state institutions we find a constant prevalence of syphilis year after year. As previously mentioned these cases represent special groups that emerge from our general population because of criminal conduct or delinquency, or social and economic adversities and mental impairment of various kinds.

In the course of twenty-one years we examined 16,349 cases at the state pentitentiary at Waupun, Wisconsin. In this group of adult criminals we find syphilis present in 12.5 per cent.

At the Milwaukee House of Correction, which is also a prison but handling mainly short-term incarcerations, we examined 11,569 cases of which 12.5 per cent were positive. Both of these prisons show the same incidence of syphilis over a period of eighteen to twenty-one years. The rates range from 10 to 14 per cent at various times. These figures would seem to justify the conclusion that in this adult criminal group syphilis is

much more prevalent than in the general population.

The Industrial Home for Women at Taycheedah is practically an adult woman's prison. Many of the inmates are sex offenders. During a period of seventeen years we have examined 4,310 cases, of which 11.3 per cent were syphilitic.

The Industrial School for Girls handles an age group ranging from ten to eighteen. Some of the older girls have been sexually delinquent. There were 5,020 cases examined over a period of eighteen years; of these 4.6 per cent were syphilitic.

The Industrial School for Boys handles an age group ranging from six to eighteen, the average is about twelve. They are mainly a preadolescent group of boys, their offenses are largely truancy, incorrigibility, minor thefts and a relatively few guilty of sexual offenses. In this group we find mostly accidental or inherited syphilis. We examined in the course of fourteen years 2,521 cases and find 2.7 per cent with positive blood reactions.

The State School for Dependent and Neglected Children at Sparta handles a still younger age group ranging from babyhood to adolescence. Over a period of eighteen years we examined 4,636 cases and find syphilis present in 2.7 per cent. These are all cases of accidental or inherited syphilis. These children come largely from homes that have been disrupted from a variety of causes, among which may be the acquired syphilis in the parents and possibly the impairment of mind that can result from this disease.

The striking thing however is the constancy of the prevalence of syphilis in these various groups. Year after year the percentage remains almost the same. It points to a constant reservoir of infection more or less identified with the conditions and circumstances that surround these individuals. After all, these institutional groups represent a certain class in which venereal diseases and other infections are more prevalent than in the whole population. The prevalence of syphilis among the adult offenders, that is, those in the state prison, is significant in this respect. Our figures compare with those found in every other similar institution throughout the United States. I cannot here touch upon the possible relationship of syphilis as a contributing factor to criminal conduct. Except in cases where there is involvement of the central nervous system, I am much more inclined to regard syphilis as a consequence or result of their criminal lives rather than a cause.

Relation to Insanity

Originally, we aimed at reducing the number of mental cases due to syphilis. When we began our work in 1915, the cases admitted to Mendota and the Northern Hospital with mental diseases directly due to syphilis was 12½ per cent at Mendota and 13 per cent at the Northern Hospital. (See table II). After several years this admission rate began to drop. Excepting a slight upward trend in 1925, the general trend was lower year after year until in 1934 the ratio reached 5 per cent at both of these hospitals. This is a reduction of over 60 per cent in the admission to our state hospitals of mental cases resulting from syphilis. These data are collected from hospital reports made by the respective institutions and not by us. When these figures are translated into persons it reveals a rather remarkable accomplishment which I wish to credit almost entirely to the medical profession of Wisconsin, a matter that I will discuss later. At this point I wish to state, however, that the saving by the State for the care of persons who would otherwise have been admitted to a state hospital is five or six times the amount of money appropriated by the State to the Psychiatric Institute. And so, entirely aside from the humane aspect of our problem and its social implications, it has paid in dollars and cents.

This accomplishment is credited to the practicing physicians of Wisconsin. Without any doubt adequate treatment, and at an earlier stage, is the only explanation for this reduction in the rate of neurosyphilis. In general the term of neurosyphilis used throughout this report includes paresis, meningovascular syphilis, taboparesis, and tabes with psychosis. Very likely we helped the

physician in discovering syphilis, but discovery alone is not enough; treatment must follow. This has been in the hands of medical practitioners throughout the State of Wisconsin and their job has been well done. In treating these cases many were prevented from becoming insane. Very likely other cases were prevented by the patient becoming noninfectious, and no one knows how many children were born free from inherited syphilis because of this contribution by the medical profession.

Milwaukee County

I can, therefore, report a very substantial decrease in the late manifestations of syphilis as evidenced by the reduced rate of admission to our two state hospitals. However, we have a curious situation in Wisconsin insofar as neurosyphilis is concerned. I will not attempt an explanation but will merely report the facts. While the State has shown a 60 per cent reduction during the last twenty years, in Milwaukee County the rate remains practically the same today as it was in 1916. By that I mean the admission of neurosyphilis to the Milwaukee County Hospital for Mental Diseases shows no decline in the course of twenty years, in contrast with the rest of the State where the decline has been over 60 per cent. In fact the rate in Milwaukee County shows an increase in 1936 (15.3 per cent) above that found in 1915 (14.5 per cent). (See table II and chart III).

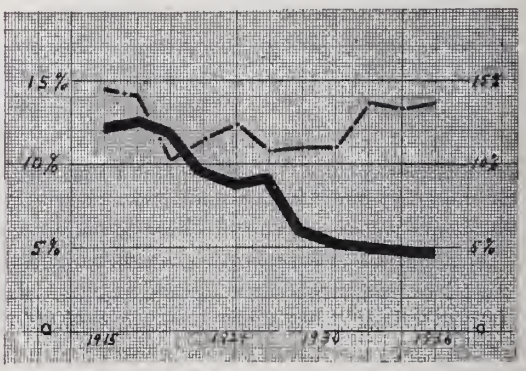
It has been claimed by some physicians that the syphilitic patient is not as easily controlled in the large municipalities; that he does not remain under observation or treatment as readily as in smaller communities, and that this may account for the situation in Milwaukee. I have found another significant difference between the practice in the whole State as compared to that in Milwaukee. This difference is in the making of cerebrospinal examinations. Our records are very clear on that point. All over Wisconsin the physicians generally make lumbar punctures in cases of syphilis especially when the disease is in its later stages. (See chart V). As the result of such examinations, (and frequently one must depend entirely upon this information) the involvement of the central nervous system is discovered. When such involvement is found the patient requires a different form of treatment than that successfully used in the earlier stages of syphilis. I have sought to get as much data as I possibly could on this point. Knowing that Milwaukee has its own serological service, I took reports coming from this source and added whatever work we have been called upon to do for Milwaukee County in order to arrive at a complete picture. From all this information, I conclude that the physicians in the State generally do exactly twice as many cerebrospinal fluid examinations in syphilis than is practiced in Milwaukee. I am, therefore, personally inclined to attribute at least a part of the failure to obtain the same reduction in late neurosyphilis in Milwaukee County to a failure to make cerebrospinal fluid examinations.

TABLE II

Ratio of insanity due to syphilis among new admissions to the two State Hospitals for Insane and the Milwaukee County Hospital for Mental Diseases from 1915 to 1936, inclusive, recorded in two-year periods.

Period	*State Hospitals*	*Milwaukee Co. Hosp. for Insane*
1915-16	12. %	14.5%
1917-18	12.6	14.
1919-20	12.	10.1
1921-22	9.5	11.7
1923-24	8.6	12.3
1925-26	9.	10.5
1927-28	6.	11.
1929-30	5.3	11.
1931-32	5.	13.8
1933-34	5.	13.3
1935-36	4.8	13.7

CHART III



Graphic representation of the rate of insanity due to syphilis among first admissions to the two State Hospitals for the Insane and the Milwaukee Hospital for Mental Diseases in 1936.

The difference in trend of the occurrence of late syphilis of the central nervous system as admitted to the mental hospitals is shown in table II and graphed in chart III. The continuous heavy line represents the State of Wisconsin excluding Milwaukee County. The broken line indicates the trend in Milwaukee County.

The difference in the rate of neurosyphilis in Milwaukee County compared to the rest of the State is so great as to warrant further study. If it is a fact, some effort should be made to meet the situation. I sought, therefore, to confirm this finding by some further inquiries. The immediate question arises "Have the diagnoses been made in these various hospitals upon the same evidence, or have the two state hospitals possibly failed to recognize neurosyphilis or grouped this condition under some other clinical designation?" I find no difference whatever in the diagnostic procedures in these three hospitals. It is well-known that one cannot depend alone upon clinical manifestations for the diagnosis of neurosyphilis. Serology is absolutely necessary. If serological methods are widely employed, much more neurosyphilis will be found than if the clinician depends upon clinical signs and symptoms alone. Therefore, the number of serological examinations made upon the patients admitted to a mental hospital is a very good index of the effort made to discover syphilis of the central nervous system. When the three hospitals are compared upon this basis one finds that in every instance all newly admitted cases receive a routine blood Wassermann. Every case in which the blood is positive, the cerebrospinal fluid is examined. In addition, many cases in which the blood is negative, but the clinical evidence suggests the possibility of an organic disease of the central nervous system, a spinal fluid examination is requested. I am also personally familiar with the medical service rendered at each one of these hospitals and likewise know that the neurological procedures, the classification, and the general medical examination is approximately the same for all three. Therefore, we can conclude that the difference in the rate of neurosyphilis is not due to any difference in the methods of diagnosis or classification.

One might question the manner in which these three hospitals serve the territories assigned to each. In this respect one again finds no difference in policy or practice. All three hospitals have served as institutions for all mental cases committed from the areas served. The question of whether the relative rate of neurosyphilis among first admissions is distorted due to a major increase in some other form of psychosis was also studied. I find nothing like this over a considerable period. In fact, during the last year, when the Milwaukee County Hospital showed its highest rate of neurosyphilis, the larger number of alcoholics admitted would tend to lower the relative rate of neurosyphilis rather than increase it. Furthermore, instead of depending upon the relative rate alone, I counted the actual number of persons with neurosyphilis admitted during the last five years, and find that this approach confirms the increased rate revealed by our figures.

The Milwaukee Hospital serves Milwaukee County alone. Each of the two state hospitals serve approximately one half of the State. A line roughly drawn from Superior to Racine separates the State into a southwestern and a northeastern half. The Northern Hospital receives its patients from the northeastern half, the State Hospital at Mendota receives its patients from the southwestern half. A further check on our findings would be to see if there is any difference between the two state hospitals. In other words, whether at one hospital one finds a relatively larger amount of neurosyphilis than at the other. Again one is impressed by the parallelism that has occurred at these two state hospitals during the last twenty years. In 1915, and for several years prior, the rate of neurosyphilis was 12 per cent at Mendota and 13 per cent at the Northern. Then when the rate began to drop in 1920, it dropped at both institutions, and at no time was there more than 1 per cent difference between these two institutions. The conditions, in fact, are so comparable that in our graph both institutions are shown in a sin-

gle line. The fact that the lowered rate of neurosyphilis was found to occur throughout the State to the same degree and at the same time, is convincing evidence that the situation reported is real.

I made a further analysis to see if the rate of insanity in relation to population might account for the difference between Milwaukee County and the rest of the State. However, this again reveals practically no difference. The average yearly rate of insanity in Milwaukee County for the last five years is 1 for 2,250 of population, while for the rest of the State it is 1 per 2,000.

Relating the actual number of cases to the population gives us another means of comparing the prevalence of neurosyphilis in Milwaukee County to that found in the rest of the State. Over a five-year period there were 217 cases of paresis, and meningovascular syphilis admitted to the Milwaukee Hospital for mental diseases. (See table III). The population of Milwaukee County (1930) is approximately 725,000. The population of the rest of the State is approximately 2,200,000. This gives us a population ratio of 1 to 3. If the State had the same incidence of neurospyhilis, there should be at least 651 cases admitted to the two state hospitals over the same period of time. But what do we find? Instead of this number, there were only 306 such cases admitted to the two state hospitals during the past five years. In other words, over twice the amount of neurosyphilis in Milwaukee County per population than the rest of the State over a period of five years. Finally, the constant, steady, year-by-year downward trend in the case of the two state hospitals over a period of fifteen years is in itself irrefutable evidence that the change is real and not a mere transient variation. We can, therefore, conclude that the reduction in the rate of insanity due to syphilis has been very substantial, has occurred throughout the entire State, at the same time and at the same rate. This finding also points to the significant fact that the medical practice in the State, which undoubtedly is largely responsible for these results, was the same all over the State.

The explanation for the difference between Milwaukee County and the rest of the State may possibly be found in a relatively greater rate of early syphilis in Milwaukee as compared to the rural State. Without doubt, the records from the large clinics in Milwaukee treating syphilis would throw some light upon the prevalence of syphilis in that county, and also such records would reveal the frequency with which lumbar punctures are made in syphilitic cases. It is generally known that syphilis is much more prevalent in urban than in rural communities. But if the increasing rate of neurosyphilis in Milwaukee is to be accounted for on the basis of the prevalence of syphilis, then one must conclude that there was an earlier period when syphilis was less prevalent, because the records clearly show a lower rate of neurosyphilis during a four or five-year period ranging from 1920 to 1925. Reference to the graph will show the period of reduced neurosyphilis rate.

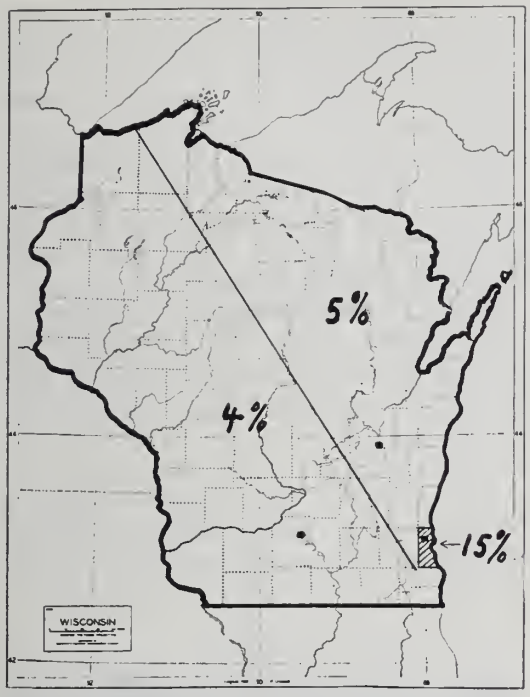
It must also be held in mind that if the increased rate of neurosyphilis of today, is due entirely to increased prevalence of early syphilis in Milwaukee County then such increased prevalence occurred six or eight years ago.

TABLE III

Showing the actual number of patients admitted to the two State Hospitals for the Insane and the Milwaukee County Hospital for Mental Diseases in early periods from 1932 to 1936 inclusive.

	State						*Milwaukee County*		
	Mendota State Hospital			*Winnebago State Hospital*			*Milwaukee County Hospital*		
Period	*Admissions*	*Neuro-syphilis*	*%*	*Admissions*	*Neuro-syphilis*	*%*	*Admissions*	*Neuro-syphilis*	*%*
1932	677	37	5.5	547	33	5.7	365	50	13.7
1933	610	32	4.4	594	30	5.0	310	43	13.8
1934	596	33	5.5	495	29	5.8	304	39	12.5
1935	582	28	4.8	524	26	5.0	306	37	12.0
1936	657	29	4.4	558	33	5.8	312	48	15.3

CHART IV



Graphic representation of rate of insanity due to syphilis among first admissions to the Northern Hospital (5%), Mendota (4%), and Milwaukee County Hospital for Mental Diseases (15%) in 1936.

Because, as a rule, it takes at least that much time for early syphilis to show up as neurosyphilis. Furthermore, if Milwaukee has experienced an increase in early syphilis, then the trend in Milwaukee is different from that found in other cities, Racine for example.

I doubt very much if the claim that increased early syphilis or its much greater prevalence in Milwaukee explains entirely the increased rate of neurosyphilis found in that community. I am inclined to believe it is a combination of greater prevalence of syphilis, difficulty in controlling patients, and insufficient cerebrospinal fluid examinations. I do not believe, in fact think it preposterous to assume, that the medical profession in Milwaukee County is less concerned about neurosyphilis, or has failed to apply all the modern measures used in diagnosis and treatment.

The situation reported is based upon facts as far as such can be obtained from hospital records and the other sources of information mentioned. There may be other explanations that have not occurred to me. The failure on the part of the patient to fully cooperate is probably much more common in urban communities and of course would be an important factor. There may be an influence because of alien groups. Whatever the explanation I firmly believe that our findings are facts.

Cerebrospinal Fluid Examinations

The importance of cerebrospinal fluid examinations cannot be overstressed. Many cases of syphilis present only slight, if any, clinical evidence of activity. When the nervous system is invaded there are frequently no outward manifestations. Cerebrospinal fluid findings alone justify a diagnosis of syphilitic involvement because the cerebrospinal fluid tests are particularly reliable, much more so than the complement fixation or agglutination tests of the blood. We, therefore, undertook to make cerebrospinal fluid examinations for physicians and institutions at the same time when the blood examinations were started back in 1915. During the first biennium, that is, 1915–16, we made seventy-eight spinal fluid examinations for physicians. In the succeeding years this number increased rapidly, excepting the two-year period of 1933 and 1934. During the last biennium, we made 5,161 cerebrospinal fluid examinations for physicians in private practice. (See table IV). Very likely the demand will be greater in the future. If so, much more neurosyphilis will be recognized than in the past.

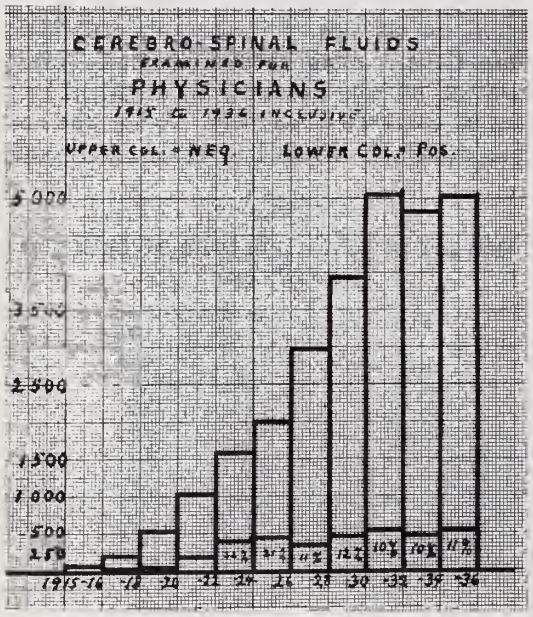
TABLE IV

SUMMARY OF SPINAL FLUIDS BY BIENNIALS PHYSICIANS

Years	*Cases*	*Positives*	*Per Cent*
1915–16	78	24	30.7
1917–18	222	47	21.1
1919–20	503	69	13.7
1921–22	1,060	225	21.2
1923–24	1,777	406	22.8
1925–26	2,066	433	21.
1927–28	2,992	336	11.2
1929–30	3,908	494	12.6
1931–32	5,209	549	10.5
1933–34	4,715	491	10.4
1935–36	5,161	570	11.
	27,691	3,644	

Each examination made by us consists of a cell count, if possible; two tests for excess globulin; a Lange's colloidal gold chloride test; a complement fixation test as modified by us in which varying amounts of fluid are used and, also, in special cases, if the supply and condition of the specimen permits, a spinal fluid sugar determination. The whole

CHART V



Showing the number of cerebrospinal fluids received from physicians in private practice from 1915 to 1936, inclusive, separated into negative and positive, and showing the percentage of neurosyphilis in relation to the total number of cerebrospinal fluids received.

examination is a rather elaborate procedure requiring much time and effort to make it reliable and clinically valuable. Nevertheless, we are so organized that this complete examination is usually finished within twenty-four hours so that a report is made by mail within a day after specimen is received. In the case of blood, the examinations are made on the day the specimen is received and the report mailed on the afternoon of the same day.

The positive cases represented in our tables are instances of neurosyphilis. All are cases potentially routed to a mental hospital or other serious nervous impairment. We are particularly anxious to discover these cases because they represent an earlier stage of the condition that ultimately leads to mental and serious nervous diseases. Furthermore, as already stated, these cases are less easily treated; the prognosis is not as good as in the early stages of syphilis. In many instances they represent cases that have escaped medical attention or were inadequately treated at earlier stages. They are also predominantly cases in which the patient has no knowledge of his infection and lives in blissful ignorance of the danger just ahead.

A still further use of cerebrospinal fluid examinations is urged. Certainly every case of known syphilis should have a spinal fluid examination before it is discharged from medical care.

In passing, it might be mentioned that the cerebrospinal fluid examinations made as a routine at our laboratory have a much wider application than the diagnosis of neurosyphilis. All acute and subacute inflammatory

CHART VI

Graphic representation of the ratio between positive blood specimens and the number of cerebrospinal fluids received from physicians in the State. The total height of each column represents the number of positive bloods. The lower, or white segment, represents the number of cerebrospinal fluids.

processes within the cerebrospinal system give diagnostic evidence in the cerebrospinal fluid. We are thus able, as we get fluids from the entire State, to watch the occurrence of isolated cases of poliomyelitis, encephalitis and meningitis. We see here at the laboratory the seasonal character of these infections and have observed the development of epidemics.

The Complement Fixation Test

I believe it is necessary at this time to make a statement concerning our complement fixation test for syphilis. We have used for many years a modification of the original Wassermann test. Our routine procedure is a rather elaborate effort. We employ eight test tubes for each blood specimen. The original Wassermann required two. Our method is quantitative as well as qualitative. The original Wassermann was qualitative only. Each test in our method is an accurate reading of complement units that have been fixed or deviated. Our report of two, three or four plus therefore represents known amounts of complement that have been fixed or deviated. I will not go into further detail at this time except to remark that before adopting this procedure developed by us as a routine service to the physicians and institutions about fifteen years ago we ran a comparative series of 5,000 cases in which we used the Kolmer icebox fixation method, the Kahn precipitation test, the original Noguchi, and our own. After this trial we were satisfied with our method. From our experience thus far we see no reason to change.

Last year we cooperated with the United States Public Health Service in a survey undertaken by that department to evaluate the various tests for syphilis used in this country. Approximately 400 blood specimens were examined by nine or ten laboratories throughout the country, ours included. A blood specimen alone was submitted. No clinical data was given. Every laboratory reported on the same specimen. At the completion of this comparative study we received the following report:

"The Committee on Evaluation of Serodiagnostic Tests for Syphilis has completed its work in the evaluation of the performance of such tests in state, municipal and private laboratories. The following rating has been given to your performance of your modified complement fixation test:

Specificity 100.0 Sensitivity 46.7."

I interpret this report as meaning that in every case in which we reported a positive finding the patient had syphilis. In other words, that we made not a single error in the nature of a false positive finding, but we apparently failed to detect syphilis in a considerable group that were regarded as positive cases. I have not received any further information from the United States Public Health Service and so do not know what clinical manifestations these patients showed in whom we failed to make a positive report. I am inclined to suspect, from my personal experience, that they are largely cases that were under treatment or had received a considerable amount of antisyphilitic treatment prior to the time of the testing. However, I am not informed on that point. Clearly, our test is very reliable in its positive findings. I knew, from our own clinical opportunities, that if we erred it would be in the direction of failing to get a positive reading in a case of syphilis that was inactive or had received a substantial course of treatment. It would be an easy matter to adjust our procedure and make it more sensitive but with such increased delicacy one invites the very uncomfortable condition of reporting positive findings in a nonsyphilitic individual. Barring accidents in the handling of specimens, mislabelling, reporting, etc., I can assure the profession that a three or four plus report from this laboratory means active syphilis. There are a very few exceptions that I will discuss sometime in the future. Upon the other hand, a case of syphilis that is being treated or has received a considerable amount of treatment, is very likely to show negative, while the Kahn precipitation test on the same serum would still show a strong positive.

These conflicting reports are sometimes embarrassing and disturbing to the clinician. My suggestion is to permit clinical judgment to decide the problem. If a case shows no clinical activity of any kind, and has had a reasonably large amount of modern antisyphilitic therapy, it certainly means something. With our method of complement fixation the physician and patient both at least are encouraged by the favorable progress evidenced in the negative reports which parallel the clinical findings. Certainly it has been every physician's experience that when he has treated conscientiously and over

(Continued on page 220)

THE WISCONSIN MEDICAL JOURNAL

The Editorial Board

GEORGE H. EWELL, Madison F. GREGORY CONNELL, Oshkosh S. J. SEEGER, Milwaukee

Editorial Staff

JOHN HUSTON, Milwaukee, Medical Editor MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

A. W. ROGERS_____Oconomowoc
FRANK W. POPE_____Racine
JOSEPH DEAN_____Madison
W. CUNNINGHAM_____Platteville
A. H. HEIDNER_____West Bend
S. E. GAVIN_____Fond du Lac
H. A. JEGI_____Galesville
G. R. DUER_____Marinette
J. W. LAMBERT_____Antigo
JOSEPH F. SMITH_____Wausau
F. E. BUTLER_____Menomonie
F. G. JOHNSON_____Iron River
JOS. LETTENBERGER_Milwaukee

Annual Subscription_____Three Dollars-Fifty Cents Single Copies_____Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI MARCH, 1937 Number 3

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

The Practitioner and Mental Disease

MANY of you know that for the past year the Committee on Institutional Care from your State Medical Society has been attempting to inform itself on the conditions existent in our state and county institutions for the care of the insane. It has also been, as it is now, the sincere attempt of this group to cooperate with the Board of Control, the Governor's Committee on Public Welfare, and others, in bringing the facts noted to the attention of interested people and shortly the legislature in order that some, at least, of the apparent defects may be remedied.

As a result of the work so far, a program of suggestions to improve the care of this special group from a medical standpoint was suggested at the 1936 meeting of the Society (see pp. 986–989, Dec. 1936, Wis. M. J.).

Our endeavors to bring these suggestions into being are being continued; they have been kindly received and in considerable measure are a restatement of facts long known to the workers in this field and to the Board of Control.

It is realized, however, that our assignment does not end even with the perfection both in conception and operating of a system to care for those already mentally ill. As in other medical fields, prevention is cheaper in suffering, in economic loss of time and in actual loss of life than is attempted cure. Therefore, we wish to go also into the field of mental hygiene or preventive psychiatry. To that end liaison is being established with other organizations interested in furthering this work, viz., the Wisconsin Society for Mental Hygiene, to the work of which your attention is invited.

It is generally conceded, both by the profession and the laity, that medical men should be the leaders in this movement; as in so many conditions, the family physician is the first to detect evidences of departure from the normal in modes of acting and feeling; it is the physician who may, with a little patience, insight, and common sense, be the one to turn the neurasthenic's fears into actual assets and perhaps prevent his drift into a psychosis; it is the local community which

. . . . THE PRESIDENT'S PAGE . . . .

"The Essence"

FAMILIARITY with all phases of prevention of disease on the part of all physicians is primarily essential if proper progress is to be made in the eradication of many of the infectious diseases. There is a great deal of activity, sometimes misdirected, on the part of many lay organizations, social workers, and lay individuals that could be entirely eliminated if all physicians who have anything to do with infants, particularly pediatricians and those who take care of obstetrical cases, would arrange for a definite immunizing program for each baby that is born.

A 100 per cent immunizing program for smallpox and diphtheria, and probably other diseases, if the physician thinks proper, given in the first or second year of life, would, within a very few years, stop all the present activity and promotional efforts on the part of the above-mentioned groups and release some of the energy to different channels. Inasmuch as we know this to be true, we still go on and let a large percentage of infants or children become of school age without making any effort to protect them while they are still entirely under our care. Then when they enter school they become the subject of all of the promotional efforts and excitement, uncertainty and oftentimes demoralization and hysteria attendant on or associated with the establishing of the mass immunization programs in the schools. There is frequently great dissatisfaction and criticism on the part of the parents, and surely much annoyance on the part of many of the profession who are called upon to participate in the programs, which could be avoided by earlier action.

It would seem in view of the many advantages obtained in the immunization of the child in the very early period of his life, such as the comparative ease of administering the various vaccines, the greatly increased protection and safety of the child, the definite, positive control of the situation by the attending physician, and the many economic advantages that would attain, that it would be the essence of common sense to constantly work toward the end that no child enters any school that has not been protected against all diseases that it is possible to prevent by immunization.

It is fully realized that there is nothing different, new or original, in this suggestion, but it is quite apparent that immunization is not being generally performed during infancy, and it seems at least permissible to reiterate, at times, a truth with which we are all familiar, but to which we do not always conform.

S. E. Gavin

must be reached in a practical way in order that a state or nation-wide movement may bear such fruit as to favorably influence the whole picture.

Unfortunately, psychiatry has, to some extent, been a stepchild of medicine and in the past treated as such; in the past courses in this subject have been placed in a secondary position as against the organic diseases although the fact that organic and functional disturbance may influence each other adversely is commonly admitted at the present time. Then, again, our practitioner is a busy man, often so interested in his search for organic disease entities that he perhaps gives too little time to his fellow townsman with mental conflicts of various kinds. As a result of this, the doctor may harm the patient by not winning his confidence and to this extent may force him into the hands of the quack, the charlatan, and the drug trade, thus also injuring the prestige of the medical profession. To his own disadvantage, too, the doctor, for lack of a little bother, ignores a very potent source of well-merited income for himself.

It would seem that it well behooves the medical man, both from altruistic and personal motives, both as a socially-minded professional man and as a tax-paying citizen, to appreciate the tremendous load which mental disease entails. The doctor, then, should do his bit to ease the load upon our over-taxed state and county institutions by contact work with the patient, by submitting his good offices to such people as school psychologists and county judges, and by informing himself that he may in time inform his townsmen in the legislature.

As to the size of the problem and the obvious desirability of preventive work, the following facts may be cited:

1. More than half of all the hospital beds in the country are occupied by mental cases, or

2. Of 296,000,000 hospital days in 1933 in the United States, 173,000,000 were spent by mental cases, and if those put in by the feebleminded are substracted, there are still more hospital days for mental cases than all others put together.

3. In Wisconsin, one in approximately 253 individuals is an inmate of a mental hospital.

4. In New York it is estimated that of twenty individuals, one at some time in his life will spend some time in a hospital for mental diseases.

5. In Wisconsin the mental hospital population of over 11,000 approximates the bed capacity of institutions in this State devoted to that purpose.

6. In Wisconsin the capital valuation of such hospitals approximates $20,000,000 and the present cost of maintenance approximates $3,000,000 per year.

At present good mental hygiene work is being done in the larger centers of the State, more especially in Milwaukee and to a lesser extent in Madison, but of what avail is this if proper work is not being carried on over the whole State and by agencies working in harmony and with a common goal?

It is readily seen from the following facts that much is to be done among the younger members of our public: (a) In a Cleveland survey of 200,000 children, 25,000 or 12.5 per cent presented some kind of behavior problem; (b) in a Staten Island (New York) survey on 2,340 public school children, 3.6 per cent were feebleminded, 16.8 per cent dullards, and 9.2 per cent borderline cases; (c) in a Rhode Island survey on 1,167 school children 8.6 per cent were mentally defective, 2.1 per cent psychopathic, 23 per cent dullards, and 13.5 per cent borderline cases. Many probation officers and county judges have no one to whom they can turn routinely for psychiatric and psychological advice when a misdemeanor is performed. At the present time, the Psychiatric Field Service under Dr. Bell is more than busy with its problems in our penal and correctional institutions.

To reach the problem child, one must enter the home or the school, but since the former is impractical, perhaps the best approach is through the public and parochial school systems.

In any event, the physician may well consider such subjects as have recently been enlarged upon in radio talks given over WTMJ under the auspices of the Wisconsin Mental

Hygiene Society, viz., "How to Prevent Mental Diseases," "Why Do We Have Nervous Breakdowns," "Facing Difficulties," or "The Feeling of Inferiority."

It takes time to create a consciousness of responsibility on the part of the profession in its public aspects as has been shown by past experience in the fields of anti-tuberculosis work, cancer prevention, and social hygiene. Yet, the profession has always come to realize its duty and to perform it. So, we feel, will be the case in the matter of limiting mental disease. We must remember that if these other diseases number their victims by the hundreds, mental situations are numbered by the thousand, viz.:

One in 325 in this country is in a mental hospital,

One in 2,406 is in a tuberculous sanatorium, or a ratio of 1 to 7+.

Methods suggested as practical in attacking this problem are:

1. Mental hygiene clinics staffed perhaps by a group working in connection with the Board of Control. Such a group would much rather have its patients referred by the doctors themselves than by public officials, yet the latter would probably be the first to avail themselves of such service.

2. An adequate number of school psychologists working with the school physician, special cases to be seen by a medical specialist in mental hygiene.

3. Distribution of pamphlets to the public by the Board of Control, as is done in New York.

4. Properly supervised articles in newspapers and periodicals, and

5. Radio broadcasts.

What is your suggestion, Doctor? What can you, yourself, do? A. W. B.

Fight Cancer With Knowledge

IS CANCER curable? Is cancer incurable? These are questions about which people, both lay and professional, take sides. Almost every layman will say without hesitation that cancer is incurable. Physicians will hesitate but they will for the most part be pessimistic.

The background of this pessimism undoubtedly is the traditional medical approach to the disease. It is traditional that the physician treats only those who are sick, and it is also customary for people to be very sick before they think of calling a doctor. The doctor rarely sees cancer until it is terminal. The public has experienced the failure of treatment at this period; hence the more or less pessimistic view of the one and the conviction of the other.

The question, is early or incipient cancer curable, shifts the approach, creates a different viewpoint, and produces a new attitude toward the disease. Early cancer is curable.

Thirty-five years ago tuberculosis was viewed with the same sort of pessimism. The public knew that it was incurable and the physician could say no reassuring word to his patient. In those days the physician knew tuberculosis as a disease which was manifested by fever, cough, expectoration, loss of weight, rapid pulse and flushed cheeks, all of which are symptoms of far advanced tuberculosis. The physician was pessimistic about its control; the public was convinced of its incurability. Late tuberculosis in the vast majority of the cases is incurable. Early, incipient tuberculosis is curable. This change of emphasis has created a new viewpoint and singled out the most vulnerable spot of this killer of mankind.

Cancer is curable; not late cancer; early cancer. Methods of treatment have progressed fast; surgery, x-ray and radium are powerful agents against early or incipient cancer. Its early recognition is the vulnerable spot of mankind's enemy No. 1. A blow aimed at that spot and accurately landed will be successful in its control.

To make an early diagnosis the case must come to the physician as soon as the least abnormality is noticed and preferably before for the removal of warts, moles, and other innocent lesions, and for annual physical examinations. The fixation of the public on the idea that cancer is incurable must be changed. Their focus must be shifted from late, incurable cancer to early and curable cancer. They must be taught that their physician can protect them against late can-

cer if they consult him early. This requires a large educational program; neither the physician nor the medical profession alone can do it. They must have the organized assistance of women and men throughout the State and Nation.

The Cancer Committee of the State Medical Society has been actively engaged in cancer education, both professional and lay, for many years. This work has been done in association with the American Society for the Control of Cancer. The American Society has sounded the call to arms for American women. In each State by the use of their nationwide sources they are building up an organization to be known as the Women's Field Army of the American Society for the Control of Cancer. The purpose is to change the focus of the public from late to early cancer. The executive committee of the Women's Field Army of Wisconsin is the Cancer Committee of the State Medical Society and their state commander is Mrs. F. H. Clausen.

Vice commanders, captains and lieutenants will begin in March to organize the women of the entire State for the battle against cancer. These women will need the help and assistance of every physician in their communities. Do not turn a cold shoulder upon their efforts, do not extend to them a deaf ear. It is the first organized attack upon cancer. They are your associates and conferees in this great battle. W.D.S.

Society Proceedings

Columbia-Marquette-Adams

The Columbia–Marquette–Adams County Medical Society held a business meeting at the Raulf Hotel, Portage, on February 9. After an open discussion of the tuberculin testing program of school children, a tuberculosis committee was appointed consisting of Dr. H. E. Gillette, chairman; Dr. C. J. Radl, and Dr. E. L. Watson. Dr. J. W. MacGregor and Dr. E. F. Tierney are to be contact members in Portage. A cancer committee was appointed by Dr. J. W. MacGregor, president, with membership as follows: Dr. W. H. Costello, chairman; Dr. L. V. McNamara, and Dr. J. R. Kellogg.

In April the society will have a joint meeting with the Sauk County Medical Society.

Eau Claire-Dunn-Pepin

Three guest speakers were present at the meeting of the Eau Claire–Dunn–Pepin County Medical Society on February 22 at the Hotel Eau Claire. The subjects were as follows:

"Incidence and Diagnosis of the Allergic Disorders," Dr. Asher A. White, Minneapolis.

"The Diagnosis and Management of Acute Myocardial Damage of Vascular Order," Dr. S. Marx White, Minneapolis.

"Norwegian Medicine," Dr. August Hellum, Larvik, Norway.

Fond du Lac

At the meeting of the Fond du Lac County Medical Society on January 21, Dr. Fred L. Smith, of The Mayo Clinic, gave an address on "General Considerations in the Treatment of Varicose Veins."

On February 18 at a dinner meeting at the Hotel Retlaw, Dr. J. E. Gonce, of the University of Wisconsin Medical School, was the principal speaker. His subject was "The Use of the Various Sera and Vaccines in the Diagnosis and Treatment of Infectious Diseases."

Kenosha

The officers of the Kenosha County Medical Society for 1937 are as follows:

Dr. C. G. Richards, president.
Dr. Charles Pechous, president-elect.
Dr. Paul Pifer, vice-president.
Dr. Leif H. Lokvam, secretary.
Dr. A. F. Ruffolo, delegate.
Dr. G. F. Adams, alternate delegate.

Langlade

At the last meeting of the Langlade County Medical Society it was decided to organize a Physicians' Credit Rating Bureau. The purpose of the bureau will be the compiling of delinquent accounts carried by members of the local medical society for the information of the members.

Lincoln

Meeting on January 20 with Dr. R. L. Frisbie, Rhinelander, deputy state health officer, the Lincoln County Medical Society discussed details of a proposed program of tuberculin testing of school chil-

dren. To finance the tuberculin testing program, the Lincoln county board appropriated $1,000 at its November meeting.

Milwaukee

The Medical Society of Milwaukee County held a meeting on February 12, at which the following papers were presented:

"The Diagnostic Features of Scarlet Fever," Dr. M. J. Fox, Milwaukee.

"Peripheral Nerve Lesions and Injuries," Dr. David Cleveland, Milwaukee.

"Pneumonia," Dr. M. Herbert Barker, assistant professor of medicine, Northwestern University Medical School.

Polk

Dr. T. O. Ries was host to the members of the Polk County Medical Society at a dinner and regular meeting on Thursday, January 21 at the Luck-E-Tavern, at Luck.

Rock

Practical aspects of diet in health and disease were discussed by Dr. Clifford Barborka, of Northwestern University Medical School, in a lecture which he gave before the Rock County Medical Society in the Monterey Hotel on January 26. A 6:30 dinner preceded the talk, and Dr. W. O. Thomas, Clinton, president of the society, conducted the business session.

Shawano

At the annual meeting of the Shawano County Medical Society the following officers were elected: President, Dr. L. W. Peterson; vice-president, Dr. E. E. Evenson; secretary and treasurer, Dr. A. A. Cantwell; delegate, Dr. A. A. Cantwell; alternate delegate, Dr. F. L. Litzen.

Sheboygan

Physicians of the Sheboygan Memorial Hospital staff and of the Sheboygan County Medical Society met at the hospital on February 3 for a business meeting, scientific program, and social hour.

Dr. F. A. Nause, Jr., vice-president, presided during the business session and introduced the various speakers. Dr. G. J. Hildebrand, Sheboygan health commissioner, discussed the epidemic of scarlet fever in the city.

A resolution was sent to Mrs. O. T. Gunther, widow of the late Dr. O. T. Gunther, of Sheboygan.

Dr. Willard M. Sonnenburg, who for two terms has been mayor of Sheboygan, has announced that he will be a candidate for re-election.

Winnebago

"Head Injuries" was the subject discussed by Dr. J. B. MacLaren, of Appleton, at a meeting of the Winnebago County Medical Society at the Hotel Raulf in Oshkosh on January 28. Dr J. P. Canavan, of Neenah, president of the society, presided.

Milwaukee Academy of Medicine

The Milwaukee Academy of Medicine held a business and scientific meeting on February 16. The following papers were presented:

"The History of Hysteria," Dr. Edward D. Schwade.

"The Surgical Treatment of Intractable Pain," Dr. David Cleveland.

Milwaukee Oto-Ophthalmic Society

The Milwaukee Oto-Ophthalmic Society held a joint meeting with the Milwaukee Radiological Society at the University Club, Milwaukee, on February 9. The scientific program was as follows:

"Radiation Therapy of Benign and Malignant Diseases," Dr. Hans Hefke.

"Reading with Eyes Closed—Piri Method," Dr. J. E. Habbe.

Milwaukee Pediatric Society

The Milwaukee Pediatric Society held a dinner meeting at the Republican Hotel on February 17. The program included a talk by Dr. Roy M. Greenthal, Milwaukee, on "The Recent Respiratory Epidemic," and one by Dr. Raymond P. Schowalter, Milwaukee, on "German Measles."

Milwaukee Society of Clinical Surgery

The Milwaukee Society of Clinical Surgery met on January 26 at the University Club, and the following scientific program was presented:

1. Address of Retiring President. "Differential Diagnosis of Biliary Tract Disease," by Dr. Louis Fuerstenau, Milwaukee.
2. Inaugural Address. "The Three Cardinal Points in the Successful Management of Biliary Tract Disease," by Dr. Carl S. Williamson, Green Bay.
3. "Intestinal Obstruction," by Dr. Warren H. Cole, professor of surgery, University of Illinois, Chicago.

Discussion by Dr. F. Gregory Connell, Oshkosh.

Officers for the Milwaukee Society of Clinical Surgery for 1937 are:

President, Dr. Carl S. Williamson.
President-elect, Dr. W. J. Carson.
Treasurer, Dr. R. W. Roethke.
Secretary, Dr. J. J. Adamkiewicz.
Executive Committee: Dr. Louis Fuerstenau, Dr. W. L. MacKedon, Dr. Karl Schlaepfer.

The Woman's Auxiliary

President—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
President Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior
Hygeia Chairman—
Mrs. H. H. Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

County News Items

Brown-Kewaunee-Door

The following officers for 1937 have been reported for the Woman's Auxiliary to the Brown–Kewaunee–Door County Medical Society:

President: Mrs. E. S. Schmidt.
President-elect: Mrs. D. B. Dana.
First Vice-president: Mrs. R. M. Burdon.
Second Vice-president: Mrs. Walter P. Tippett.
Recording Secretary: Mrs. L. D. Quigley.
Corresponding Secretary: Mrs. O. A. Stiennon.
Treasurer: Mrs. H. S. Atkinson.
Auditor: Mrs. E. S. Knox.

The chairmen of standing committees are:

Social: Mrs. E. G. Nadeau.
Philanthropic: Mrs. I. E. Levitas.
Hygeia: Mrs. G. F. Denys.
Program and Entertainment: Mrs. W. W. Ford.
Printing and Press: Mrs. R. W. Kispert.
Flowers: Mrs. R. W. Burns.
Telephone: Mrs. C. J. Chloupek.
Membership: Mrs. E. S. McNevins.
Legislative: Mrs. M. H. Fuller.
Early Medical History: Mrs. P. R. Minahan.

Mrs. E. S. Schmidt assumed the office of president of the Woman's Auxiliary to the Brown–Kewaunee–Door County Medical Society on January 19 at the expiration of the term of Mrs. Arthur J. McCarey. The meeting opened at one o'clock with a luncheon at the Pompeian room of the Northland Hotel, Green Bay, and following this at the business meeting the reports of officers and chairmen of various committees were read and accepted.

Dane

The Woman's Auxiliary to the Dane County Medical Society met on February 10 for a one o'clock luncheon at the home of Mrs. Joseph C. Dean, Madison. Assisting as hostesses were Mrs. Thomas W. Tormey, Madison, Mrs. K. K. Amundson and Mrs. G. E. Bilstad, Cambridge. The afternoon was spent in mending and repairing clothing for the flood sufferers.

Dodge

The Woman's Auxiliary to the Dodge County Medical Society has recently received a letter of appreciation from the State Historical Museum for its contribution to the collection on medical history in Wisconsin. The letter from Mrs. Brown, director of the State Historical Museum, follows:

Mrs. A. M. Rosenheimer,
Beaver Dam, Wisconsin.

Dear Mrs. Rosenheimer: I wish to express to you the very grateful thanks of the State Historical Museum for your recent gifts made through the Woman's Auxiliary to the State Medical Society of Wisconsin. The photographs of former Wisconsin physicians and surgeons, the surgical kit of Dr. F. H. Wallace, the pamphlets, books, prescriptions, recipe book, surgical instruments, pestle, and other specimens will be most valuable to our Wisconsin Medical History collection.

If you should happen upon any additional specimens, we shall be greatly pleased to have them.

Yours very truly,
Charles E. Brown,
Director, State Historical Museum.

Douglas

The Woman's Auxiliary to the Douglas County Medical Society had their January meeting at a luncheon at the Androy Hotel. Mrs. L. W. Beebe, president, presided, and the following officers were elected for the next year:

President: Mrs. L. W. Beebe.
President-elect: Mrs. J. R. Goodfellow.
Vice-president: Mrs. G. J. Hathaway.
Secretary–treasurer: Mrs. J. M. Meyers.

The chairmen of various committees are as follows:

Press: Mrs. V. E. Ekblad.
Program: Mrs. E. A. Myers.
Hygeia: Mrs. H. A. Sincock.
Telephone: Mrs. T. J. O'Leary.

Approximately forty couples were present when wives of members of the Douglas County Medical Society were entertained at a dinner dance at the Gitchinadji Country Club on January 4. Dr. J. D. Hill, of the Superior State Teachers College, was guest speaker.

Fond du Lac

After hearing an explanation of the project by Dr. E. H. Pawsat, city health officer, members of the Auxiliary to the Fond du Lac County Medical Society at a meeting on January 21 voted to endorse the plan of the state sanitary engineer for the building of an incinerator in the city.

Cooperating with the State Auxiliary, the Fond du Lac society also voted to secure histories of all medical men of the county, past and present, to be placed on file in the historical museum in Madison.

Miss Ruth Pfeil, county nurse, addressed the Auxiliary on her work, explaining the various phases of her duties.

The meeting which was in charge of the Social Committee headed by Mrs. Ralph G. Mills, opened with a dinner at the Hotel Retlaw. Mrs. J. P. Connell, president, presided at the business meeting.

Milwaukee

About 175 members were present at the Valentine luncheon meeting of the Woman's Auxiliary to the Medical Society of Milwaukee County which was held Friday noon, February 12, in the Crystal Ballroom of the Schroeder Hotel.

Dr. E. F. Peterson, president of the Medical Society of Milwaukee County, spoke on a subject of interest to all Auxiliary members,—"The Doctor's Wife." Dr. M. Fernan-Nunez, professor of pathology, Marquette University School of Medicine, gave an instructive illustrated lecture, with colored lantern slides, on "Spain." Two authentic Spanish dances were given in costume by Sylvia Orth, with Mrs. Arno Fromm at the piano and Mrs. Lester Wieder, celloist. Mrs. Fromm played her own accompaniment for a vocal solo, "Estralita."

The program was followed by the regular business meeting of the Auxiliary. A letter from the Medical Society of Milwaukee County outlining an extensive educational program was read. It was thereupon voted that the Auxiliary cooperate with and assist the Medical Society of Milwaukee County in raising funds for this program of public education. Mrs. Robert Washburn, chairman of the Committee on Public Relations, requested that speakers on educational subjects be placed whenever possible by this committee. Mrs. William Jermain, chairman of the Visiting Nurses Association, said that there was work for all interested in assisting with sewing.

Mrs. N. Warren Bourne, chairman of the membership committee, announced the election of, and welcomed ten new members as follows: Mrs. Hobart Allebach, Mrs. Harold E. Cook, Mrs. M. C. Dishmaker, Mrs. E. G. Festerling, Mrs. H. L. Herschensohn, Mrs. T. L. Johnston, Mrs. Willard Nichols, Mrs. James R. Regan, Mrs. J. A. Schmidt, and Mrs. C. M. Schoen.

Mrs. Charles Fidler, chairman of the Program Committee, announced that the next meeting would be on Friday, March 12. Dr. S. E. Gavin, president of the State Medical Society of Wisconsin, whose subject will be "The Relationship of Organized Medical Units," and Judge Michael S. Sheridan will be the speakers.

Again the Woman's Auxiliary to the Medical Society of Milwaukee County reminds all members of auxiliaries to county medical societies in Wisconsin that they are cordially invited to attend all meetings in Milwaukee; that these meetings are held the second Friday of each month; and that reservations may be made with the chairman of the Social Committee, Mrs. Ralph D. Bergen, 2503 East Stratford Court, Milwaukee, Telephone Edgewood 4211.

Portage

On February 1 at 7:00 p. m., a meeting of the Woman's Auxiliary to the Portage County Medical Society was held at the home of Mrs. Louise Eberlien. The serving of dessert and coffee was followed by a business meeting and program.

Mrs. G. H. Lawrence read an interesting paper on "A Medical Poet of the Middle Border, William Savage Pitts, M. D." written by Louis H. Rhoddis, M. C. U. S. Navy, Washington, D. C. The paper dealt with the origin of the song, "The Little Brown Church in the Vale," and also with the origin of the church itself.

It was voted that the Auxiliary would have meetings every month, with the exception of the summer months, and Mrs. F. A. Marrs will have charge of the programs.

Racine

Miss Meta Bean, of the Wisconsin Anti-Tuberculosis Association, of Milwaukee, was the speaker on February 9 at the meeting of the Racine County Medical Auxiliary held in the library of St. Luke's Hospital. Miss Bean showed slides and spoke on the social aspect of the tuberculosis situation. During the short business meeting, the Hygeia Committee reported that approximately twenty-five copies of Hygeia have been placed in the public schools.

Rock

The Woman's Auxiliary to the Rock County Medical Society met for dinner at the Janesville Women's Club on January 26. Mrs. C. A. Harper, president of the State Auxiliary, was the guest speaker.

Sheboygan

The Woman's Auxiliary to the Sheboygan County Medical Society held its monthly luncheon meeting on January 4. The new officers presided, and chairmen were appointed to the various committees. Mrs. Thornton gave an interesting talk on the

work being done at the vocational school by the University Extension Department.

At the February meeting, which was held at the Heidelberg Club, various projects were discussed in which the Woman's Auxiliary might take an active part. Miss Von Grueningen, the county nurse, talked about her work in the rural schools of the county.

Washington-Ozaukee

On January 14 the Woman's Auxiliary to the Washington–Ozaukee County Medical Society held its meeting with a luncheon at the Pantry at Cedarburg, followed by a business and social meeting.

The next meeting on March 11 will be held at the Beacon at West Bend with the business and social meeting at the home of Mrs. A. H. Heidner.

Waukesha

The members of the Woman's Auxiliary to the Waukesha County Medical Society were entertained at an afternoon tea on February 3 at the home of Mrs. A. J. Grover, of Hartland. Mrs. James Hassall, of Oconomowoc, was co-hostess. Mrs. Herbert Sydow, of Waukesha, was the speaker and related some of her experiences as a former stewardess on an airplane.

Waupaca

Wives of thirteen physicians met in Clintonville on February 11 for the purpose of organizing a Woman's Auxiliary to the Waupaca County Medical Society. The meeting was preceded by a one o'clock luncheon at the Hotel Marson.

Mrs. F. J. Pfeifer, of New London, presided as temporary chairman during the business meeting, in which the following permanent officers for the year were elected. President: Mrs. J. H. Murphy, Clintonville; president-elect: Mrs. F. J. Pfeifer, New London; secretary: Mrs. W. H. Finney, Clintonville; treasurer: Mrs. M. O. Boudry, Waupaca.

The new organization will meet once in three months, four times a year. A committee appointed to draft a constitution to be presented for approval at the next meeting includes Mrs. John Monsted, Mrs. Melvin Borchardt, and Mrs. T. M. Slemmons, all of New London.

Winnebago

The first meeting of the 1937 season of the Woman's Auxiliary to the Winnebago County Medical Society was held early in February at the Menasha Grill in Winnebago. The president, Mrs. E. B. Pfefferkorn, appointed the chairmen of committees to serve for the year. They include: program, Mrs. W. N. Linn; publicity, Mrs. William E. Clark; history and archives, Mrs. T. D. Smith; Hygeia, Mrs. Milton Donkle; public relations, Mrs. H. A. Romberg; membership, Mrs. F. Gregory Connell; calling committee, Mrs. A. G. Koehler; and parliamentarian, Mrs. R. H. Bitter.

News Items and Personals

A special program of lectures and demonstrations in surgery and medicine will be held under the direction of The Mayo Foundation from April 5 to 9, inclusive. Mornings will be devoted to surgical and medical clinics. In the afternoons and evenings, in addition to clinicopathologic conferences, symposiums will be conducted on urology, cardiology, gastro-enterology, dermatology, endocrinology, diseases of the colon and rectum, orthopedics, and arthritis. Visiting physicians will be welcome guests.

—△—

Dr. J. A. Diamond has retired from the practice of medicine in Frederic, and after a vacation of several months expects to be at the home of his son, Dr. F. J. Diamond, in Gladstone, Michigan. Dr. R. G. Arveson has taken Dr. W. C. Andrews, who has been associated with the Arveson–Diamond Clinic for the last nine years, into partnership, and the clinic will be known as the Arveson–Andrews Clinic.

—△—

Dr. A. A. Sinaiko, formerly of Stevens Point, has opened offices in the Gay Building in Madison.

MILWAUKEE VISITORS

Through the Committee on Postgraduate Instruction of The Medical Society of Milwaukee County, there is now available to visiting physicians out in the State a daily schedule of operations and clinics in Milwaukee hospitals. Doctors are invited to make use of this service.

Information concerning operations scheduled for the following day is received by the Physicians' Service Bureau,—the Society's twenty-four-hour telephone service,—between 4:00 and 5:00 p. m. daily. The Bureau will be happy to give this information to all practitioners requesting it. Call Marquette 4131.

The following officers were elected at the annual meeting of the State Board of Health on January 29:

Dr. Joseph Dean, Madison, president.
Dr. J. J. Seelman, Milwaukee, president-elect.
Dr. Mina B. Glasier, Bloomington, vice-pres.
Dr. C. A. Harper, Madison, secretary.

The appointments to the Committee on Nursing Education of the State Board of Health are:

Dr. Millard Tufts, Milwaukee, to succeed Dr. Oscar Lotz, Milwaukee; the Rev. Herman Fritschel, Milwaukee, reappointed; Sister M. Florina Nieland, La Crosse, reappointed; Miss Blanche Graves, Milwaukee, to succeed Sister M. Bartholomea Betzen, Oshkosh; Sister M. Felician Owens, Milwaukee, reappointed; Miss Helen Denne, Madison, reappointed; and Miss Adeline Hendricks, Milwaukee, succeeding Miss Olive M. Graham, Wausau.

—△—

Dr. Saul K. Pollack, who for the last six and a half years has been senior physician in the Milwaukee County Hospital for Mental Diseases, has announced his entrance into private practice at 658 Bankers' Building, Milwaukee. His work will be limited to neurology and psychiatry.

—△—

Dr. A. W. Rogers, chairman of the Council, has appointed an Advisory Committee on Visual and Hearing Defects to assist Mr. John Callahan, state superintendent of schools. Members of this committee are as follows: Dr. John Hitz, Milwaukee, chairman; Dr. E. E. Neff, Madison; and Dr. E. G. Nadeau, Green Bay.

—△—

Mr. Stanley Noble, during the last year secretary of the Wisconsin Society for Mental Hygiene, resigned as of March 1. He will remain in Milwaukee to become the personnel manager of a local industry.

—△—

Dr. J. C. Wright, of Antigo, is spending the winter in Beverly Manor, 334 North Normandie Avenue, Hollywood, California. Doctor Wright was for many years secretary of the Langlade County Medical Society and for fifty consecutive years attended the annual meeting of the State Medical Society of Wisconsin.

—△—

The new $77,000 gymnasium recently completed for Ashland High School as a WPA project has been named the "Dodd Gymnasium" in honor of Ashland's mayor, Dr. J. M. Dodd, who spent much time and energy in furthering the work. Doctor Dodd was formerly councilor and also at one time president of the State Medical Society of Wisconsin.

—△—

Dr. G. A. Steele, of Oshkosh, has been elected to the office of coroner of Winnebago County. This is the first time in the county's history that a physician has occupied this office.

—△—

Dr. B. I. Pippin, of Richland Center, has announced the organization of a clinic, and he has taken into partnership Dr. T. B. McCord, who has been his assistant for the last two years, and Dr. Donald Frawley, who has just moved to Richland Center from New York City.

BIRTHS

A daughter, Karen Anna, to Dr. and Mrs. Leif H. Lokvam, Kenosha, on January 17.

A son to Dr. and Mrs. Edward Eisenberg, Milwaukee, on February 7.

A son, George Faerras, to Mr. and Mrs. George B. Larson, Madison, on February 8. Mr. Larson is assistant secretary of the State Medical Society of Wisconsin.

A daughter, Mary Agnes, to Dr. and Mrs. R. W. Burns, Green Bay, on January 25.

A son to Dr. and Mrs. E. F. Schneiders, Madison, on February 25.

MARRIAGES

Dr. S. A. Theisen, Fond du Lac, and Miss Dorothea Leonard, Fond du Lac, on December 26, 1936.

DEATHS

Dr. Elias J. Helgesen, a practicing physician in Evansville for eighteen years, died on January 22 after an illness of three years. He was born in 1866 and received his medical education at Keokuk, Iowa, at the College of Physicians and Surgeons, from which he was graduated in 1893. After graduation he practiced at Badger and Forest City, Iowa, for a few years. Then he moved to New Glarus, where he practiced for twenty-three years before locating in Evansville. Survivors are his widow and four sons.

Dr. Frank S. Wasielewski, of Milwaukee, died on February 3 at the Milwaukee Hospital after an illness of six months. Born in Bay City, Michigan, in 1874, he came to Milwaukee to practice after being graduated from the University of Michigan Medical School in 1899.

Doctor Wasielewski was a member of the board of the Johnston Emergency Hospital and served as president of that body for two years; was president of the Polish Physicians and Dentists Association, and was chief medical examiner of the Polish Association of America for several years. During the World War he assisted in enlistments of Polish-Americans in the United States army. Doctor Wasielewski was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association.

He is survived by his widow and three sons.

Dr. Arthur T. Gregory, of Mauston, retired physician and surgeon, died on February 6. He was born in 1855, and after graduation from the University of Illinois College of Medicine, he located at Elroy. In 1921 he moved to Mauston, where he continued has medical practice until a few years ago. Doctor Gregory was a charter member of the Juneau County Medical Society, and was its secretary and treasurer from the time of organization in September, 1903, to October, 1934, inclusive. From 1934 until his death he was, by unanimous vote of the members of the Juneau County Medical Society, an honorary member of the society. Doctor Gregory also served as a member of the House of Delegates of the State Medical Society of Wisconsin. He is survived by his widow and one brother.

Dr. Otto Gunther, physician and surgeon of Sheboygan for the last twenty-four years, died at the Sheboygan Memorial Hospital on January 26, the cause of death being coronary thrombosis and cerebral embolism.

He was born in 1885, was graduated from Rush Medical College in 1911, and spent his internship from 1911 to 1913 at St. Luke's Hospital in Chicago, after which he located in Sheboygan. He served in the World War as first lieutenant, Field Hospital, No. 256, Fourteenth Sanitary train, from 1918 to 1919. In the spring of 1922 he joined the staff of the Sheboygan Clinic, and at the time of his death was director of the clinic and chief of staff of the Sheboygan Memorial Hospital.

He was a member of the Sheboygan County Medical Society, the State Medical Society of Wisconsin, the American Medical Association, and the American College of Surgeons. He is survived by his widow and two sons.

Dr. Horace L. Hulett, retired physician of Milton, died on February 2. He was born in 1871, and was graduated from the University of Buffalo School of Medicine in 1896.

SOCIETY RECORDS

New Members

G. M. Shinners, Green Bay.
Wm. De Hollander, Springfield, Illinois.
H. J. Schilling, Denmark.
C. E. Benson, Gundersen Clinic, La Crosse.
Aloysius Szopinski, Stevens Point.
John F. Kelley, Janesville.
T. A. Teitgen, Manitowoc.
H. A. Bolstad, De Soto.
C. H. Buckley, Menomonie.
S. B. Russell, Eau Claire.
O. G. Moland, Augusta.
A. F. Rogers, 324 E. Wis. Ave., Milwaukee.
A. R. Kaufman, Mauston.
E. H. Jorris, Mauston.
F. P. Daly, Chippewa Falls.
J. A. Knauf, Stockbridge.
L. C. J. Olson, Delafield.
A. X. Kamm, Ashland.
L. W. Ramlow, 6803 W. Wells St., Wauwatosa.
E. S. Sinaiko, Markesan.
Mary Neville, Milwaukee Co. Dispensary, Milwaukee.
M. C. Dishmaker, 5403 W. Center St., Milwaukee.
W. T. O'Brien, Mauston.
L. D. Sobush, Manitowoc.
R. G. Yost, Manitowoc.

Changes in Address

Griffith Jones, Cottage Grove, to Genesee Depot.
E. A. MacCornack, Callao, Peru, S. A., to 2950 Rivermont Ave., Lynchburg, Va.
James Regan, Veterans' Administration, to 611 No. 61st St., Wauwatosa.
A. A. Sinaiko, Stevens Point, to Gay Building, Madison.

Reinstated Members

C. J. Becker, Milwaukee.
J. A. Davies, Milwaukee.
T. F. McCormick, Milwaukee.
J. H. Carroll, Milwaukee.
R. J. Muenzner, Milwaukee.
H. P. Robinson, Milwaukee.
B. A. Hoermann, Milwaukee.
J. M. Caputo, Wauwatosa.
R. F. Purtell, Milwaukee.
E. D. Schwade, Milwaukee.
S. I. Waxman, Milwaukee.
J. V. Bolger, Milwaukee.
W. A. Sannes, Soldiers Grove.
C. F. Fishback, Sharon.
Walter Mauthe, Whitewater.
M. W. Garry, Montreal.
C. E. Wall, Manitowoc.

ACQUIRE THE HABIT

of using the

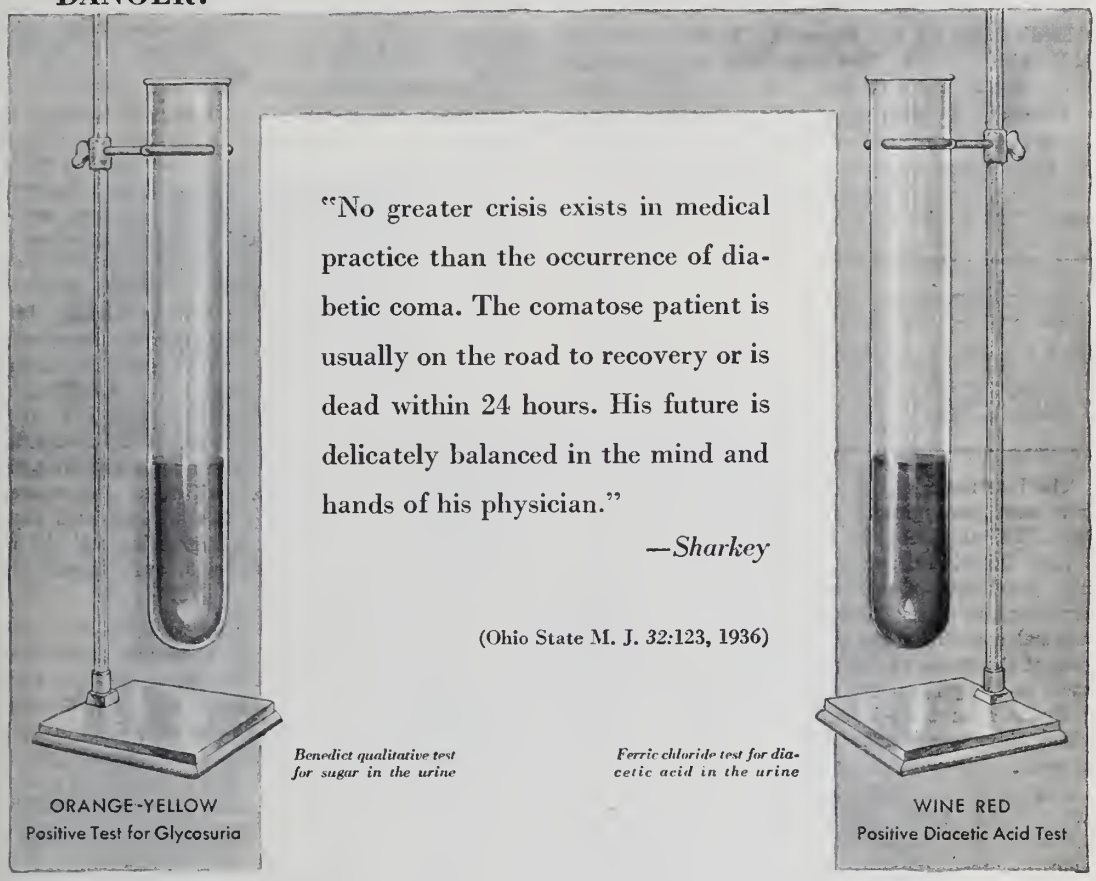
MEDICAL LIBRARY SERVICE

412 N. Charter St.

Madison

Diabetic Acidosis

DANGER! EMERGENCY!



Early Portents	Later	Then
Polyuria	Loss of strength	Nausea and vomiting
Polydipsia	Loss of weight	Desiccating of tissues
Polyphagia	Loss of appetite	Unconsciousness

Important Factors in Treatment

1. INSULIN early and in repeated doses. 2. FLUIDS to combat dehydration.

ILETIN (INSULIN, LILLY)

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

The Journal Bookshelf

BOOKS RECEIVED FOR REVIEW

Medical Morals and Manners. By H. A. Royster, M.D. Chapel Hill: The University of North Carolina Press. Price $2.50.

Autopsy. By Otto Saphir, M.D., chairman, Nelson Morris Institute for Medical Research; pathologist, Michael Reese Hospital; associate professor of pathology, University of Illinois Medical School, Chicago. New York: Paul B. Hoeber, Inc. Price $5.00.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

The International Medical Annual. A yearbook of treatment and practitioner's index. Fifty-fourth year. William Wood and Co., Baltimore. Price $6.00.

This British annual is comparable to the American yearbooks of medicine. In a single volume, however, the newer contributions to the medical and surgical specialties are covered as seen through the eyes of thirty-six reviewers. This plan recommends itself to the general practitioner for by reference to a single volume he is enabled to acquaint himself with the important advances made in the entire field of medicine in any year and for the same reason the specialist, whose field of practice is more limited, can readily know of advances made in allied branches. The lessened tendency of the British to subdivide medicine into a large group of medical specialties is likewise suggested.

The introduction is most interesting for there attention is drawn to a few of the outstanding developments and changes which are taking place. This is followed by a "Dictionary of Practical Medicine" where diseases such as agranulocytosis; organs such as lungs, and procedures such as skin grafting are alphabetically arranged with cross references. Finally there is a most comprehensive "General Index" which greatly increases the availability of the subject material. Should the reader desire further information than that given he will find numerous references to original articles immediately following each topic reviewed.

In addition to being carefully edited and well printed, the volume is profusely illustrated with over one hundred and fifty figures and plates both colored and uncolored.

In brief, this volume is the most comprehensive reference book to the minutes of the yearly proceedings of the field of medicine with which the reviewer has knowledge. K. L. P.

Endocrinology in Modern Practice. By William Wolf, M.D. W. B. Saunders Company, Philadelphia, 1936. Cloth, $10.00 net.

This large volume of 1018 pages covers all the features of the field of endocrinology in rather elaborate detail. It is organized so that one may look up his subject under the heading of the gland involved, the conventional diagnosis of most any of the ordinary diseases, whether endocrine or not, or by symptoms. There is an extensive presentation of anatomy, pathology, and some physiology. There are sections on laboratory methods. There are two things, however, which are seriously missed. In a book of such extent, one might hope for documentation so that the authority for giving the statements could be traced. This is entirely absent. Furthermore, with such an extensive presentation of material, one would like to have some critical evaluation of the different subjects. It is apparent that the author has included in his book almost all suggestions about all endocrine matters. The book lacks the positiveness of personal impression and the results of the author's experience, even though one may disagree with him.

This book represents the belief which is increasing in medicine that there is an endocrine aspect to a very large share of medicine. This does not mean that endocrinology will take over the whole of medicine, but that it will provide certain points of view. In that sense it is valuable to the general practitioner. On the other hand, it is so extensive as well as expensive that few will care to have it available outside of the libraries. E.L.S.

Principles of Biochemistry. By Albert P. Mathews, Andrew Carnegie professor of biochemistry, University of Cincinnati, Cincinnati, Ohio. William Wood & Company, Baltimore, 1936. Price $4.50.

The new Mathews is in most respects a very different text from the old one, which has been so widely used. One of the most striking changes made is in the arrangement of the material. This differs from the usual order in that many heretofore isolated topics are brought together into one section and the attempt is made to weave these into a complete story. Such procedure is fraught with difficulties and is likely to introduce some erroneous ideas. On the other hand, some rather startling and stimulating clarifications ofttimes result. This is the situation which this new edition creates.

The clinician will find the book interesting because of the frequent reference to disease conditions and attempts to explain them in terms of new information. This should also appeal to students who too frequently complain of the absence of practical information in their biochemical courses.

For Children's Colds

In prescribing 'Benzedrine Inhaler' for children's head colds, you are providing a first aid remedy which may prove of constant service.

At the first sign of a cold the child is instructed to use the inhaler. Since benzyl methyl carbinamine is volatile, it penetrates to areas not readily accessible to liquid inhalants, and there is no oil to be aspirated and become a potential source of later trouble by accumulating in the lungs. (Graef—Am. J. of Path., Vol. xi: No. 5, Sept. 1935.)

For the adult members of the family, 'Benzedrine Inhaler' is equally useful.

Each tube is packed with benzyl methyl carbinamine, .325 gm.; oil of lavender, .097 gm.; menthol, .032 gm.

'Benzedrine' is the trade mark for S. K. F.'s nasal inhaler and for their brand of the substance whose descriptive name is benzyl methyl carbinamine.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

BENZEDRINE INHALER

A VOLATILE VASOCONSTRICTOR

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA. • EST. 1841

The elimination of much old material, which has only historical interest, makes the book more accessible. It is thoroughly up-to-date and should prove to be a valuable addition to any library. H. D. B.

Fundamentals of Human Physiology. By the late J. J. R. MacLeod, late regius professor of physiology in the University of Aberdeen, Scotland; and R. J. Seymour, M. D., professor of physiology, Ohio State University, Columbus, Ohio. Fourth edition, C. V. Mosby Company, 1936. Price $2.50.

The basis for the author's presentation of physiology is laid by a chapter on the structural basis of the body and another chapter on the physicochemical basis of life. Then, there is presented in order: muscular system, integrating fluids, blood, lymph, circulatory system, respiration, nutrition and dietetics, accessory articles in a diet, digestion, metabolism, animal heat and fever, endocrine glands, the fluid excretions, the nervous system and reproduction. Throughout the text there is sufficient anatomy presented to promote a proper understanding of function. The chapters are well supplied with subheadings and the subject matter is divided into many paragraphs so that the subject matter is not presented in a solid mass.

The discussion of the subject matter is marked by simplicity, conciseness, completeness and a very interesting style. The text is well supplied with illustrations. The fourth edition has been brought up-to-date.

This book seems to be particularly well adapted for use by elementary classes. R. C. H.

The 1936 Year Book of General Medicine. Edited by George F. Dick, M. D., Lawrason Brown, M. D., and others. The Year Book Publishers, Chicago. Price $3.00.

The Year Book is the usual collection of abstracts of the literature during the past year. There are many questionable ideas and observations that have yet to be confirmed, and a great deal of specialized research of lesser interest to the general practitioner. It was impossible to abstract these abstracts and the reviewer found it quite difficult to digest the full significance of various articles. In general there seems to have been no startling discoveries during the past year, but to some the book may be thought-provoking. C. F. M.

Surgical Clinics of North America. Volume 16, Number 3. New York Number—June 1936. W. B. Saunders Company, Philadelphia. 1936. Paper $12.00; Cloth $16.00 net.

The June volume, from the New York group, follows the familiar plan of devoting itself to summaries or discussions of surgical problems rather than to presentation of original research. Many of the papers include brief case summaries illustrating the points under discussion; those on technique are adequately illustrated. They are well written and readable, affording an easy method of familiarizing oneself with present day surgical opinion upon the subjects considered; as such the volume should be especially helpful to the busy general practitioner. Men devoting themselves exclusively to the practice of surgery will find it interesting, but will, no doubt, wish to consult the original literature for more detailed information. R. J. N.

The Medical Clinics of North America. Vol. 20. Number 2. St. Louis Number. W. B. Saunders Company, Philadelphia, 1936. Paper, $12.00; Cloth, $16.00.

This issue of the well-known bimonthly medical clinics of North America is the St. Louis number, and most of the discussions are contributed by members of the faculty of the Washington University School of Medicine. The first portion of this number is devoted to an endocrine symposium, and the remainder is composed of papers on a wide range of subjects. Any detailed review of this periodical is not feasible. For those who ordinarily enjoy this type of medical literature, the present number will be of the usual interest. M. L. C.

Snow on Cholera. Reprint of Two Papers. By John Snow, M. D., with a biographical memoir by B. W. Richardson, M. D. New York: The Commonwealth Fund, 1936. Price $2.50.

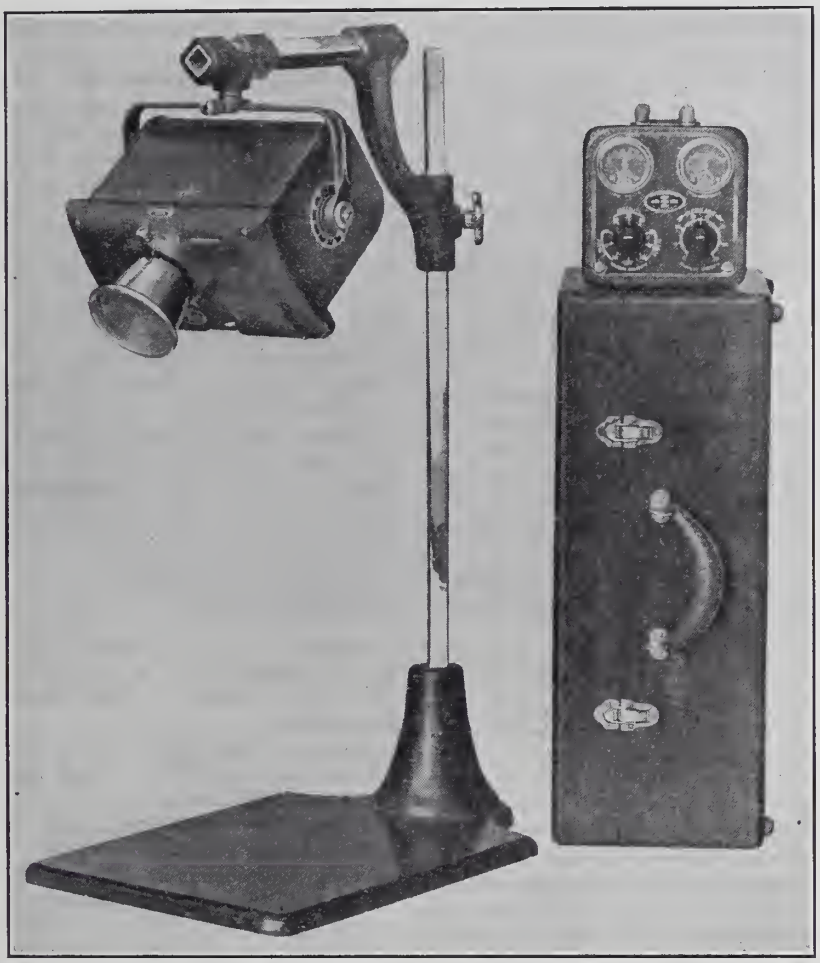
This book will be interesting to every student, and particularly to those students who are interested in medical history. John Snow was an unusual observer of natural phenomena and brilliant in the correlation of his observation for the formulation of ideas and conclusions as to the relation of cause and effect. Considering the state of medical knowledge of the period in which he lived, to conclude from his observations and studies of various cholera epidemics that epidemic diseases are due to a specific poison which propagates according to fixed law in animal bodies and is transmitted from one individual to another is testimony of his keen powers of observation and his bright intellect.

Observation of the spread of cholera in England and Scotland during the middle period of the nineteenth century convinced him that the prevalent explanation of emanations arising from foul-smelling places was not correct. He concluded that cholera is spread by water polluted with the excreta from people sick with the disease, and other contact with material contaminated by cholera patients. So definite were his concepts that without suspecting bacteria as such he all but described the cholera bacillus.

The record of his observations and methods of tracking cholera from one lair to another until he had convinced himself of its cause, method of spread and prevention, is not only instructive for physicians who are still dependent upon this method of tracking down disease in their patients but is also as thrilling as any detective story. W. D. S.

PICKER-WAITE SHOCKPROOF PORTABLE X-RAY

Sold by HURLEY X-RAY COMPANY



An X-Ray unit providing 80,000 volts at 10 M. A.—powerful enough for chest radiography at 36″ or 72″ distance.

Precision control with nine steps of voltage control and line voltage adjustment insuring correct radiographic density.

The unit is compact — easily portable — and provides every conceivable angle for radiography and fluoroscopy.

Available with Table Stand or Mobile Tube Stand at remarkably low prices.

"A Demonstration Is Yours For The Asking"

Write or Telephone

HURLEY X-RAY COMPANY

PHYSICAL THERAPY and X-RAY EQUIPMENT

2511 West Vliet Street Milwaukee, Wisconsin West 3243-3244

Allergic Diseases. By R. M. Balyeat, M. D., associate professor of medicine and lecturer on diseases due to allergy, University of Oklahoma Medical School; director, Balyeat Hay Fever and Asthma Clinic. Assisted by Ralph Bowen, M. D., chief of pediatric section, Balyeat, Hay Fever and Asthma Clinic, Oklahoma City, Oklahoma. Fourth edition, revised and enlarged. Philadelphia: F. A. Davis Company, 1936. Price $6.00.

The first edition of Doctor Balyeat's work on "Allergic Diseases" was of timely importance in view of the growing interest displayed by the profession in his subject. Its popularity with specialists in the allergic field and with the general practitioner is evidenced by the necessity for four editions within fifteen years.

In the fourth edition, the author had devoted several chapters to the newer concepts of his subject, particularly the advances of allergic study in migraine, gastro-intestinal conditions and the dermatological field.

He agrees with many writers that usually food sensitization is the primary etiological factor in the production of the group of symptoms referred to as the migraine-complex. He also believes that many of the dermatoses, besides those long known to be of the contact type, are due to specific food-protein ingestion.

Many valuable suggestions for elimination diets as well as numerous recipes omitting wheat, eggs, and milk are found in Chapter 41.

The author devotes a long chapter to the use of intratracheal iodized oil in the treatment of so-called intractible asthma, combined, of course, with eliminative measures and specific desensitization when indicated. In his opinion, this has proven effective and valuable—the opinion of many other allergists to the contrary.

The volume contains many illustrations and diagrams. Some of these, however, appear to be valuable only in emphasizing the simple manner of presenting the subject matter. The publishers have used an exceptionally clear type, and the book is easily readable and should be even more useful, particularly to the general practitioner, than the previous editions. W. A. M.

Dietetics for the Clinician. By Milton Arlanden Bridges, M. D., director of medicine, Detention, Rikers Island and West Side Hospitals, New York; consulting physician, Seaview Hospital, Staten Island, New York; and department of education, New York University, New York. Third edition, thoroughly revised. Philadelphia: Lea and Febiger, 1937. Price $10.00.

This volume by Doctor Bridges, together with the considerable number of collaborators, is distinctly improved as compared with the first edition of 1933. It is 60 per cent longer and includes the valuable tables of food composition published separately by the author in book form in 1935. The organization of the book is fundamentally as it was before, with rewriting and additional matter which justifies the following quotations from the publishers' statement about the book: "The third edition of this work is practically a new book based on more up-to-date foundations than were its predecessors. In it, the author offers a new classification of foods, presenting their mineral, nutritive and vitamin values in their edible state as well as the analyses of raw products. This edition has been enlarged to include the dietary treatment of more than two hundred diseases. The diets have been increased to three hundred, and approximately nine hundred menus have been presented in the form of three meals daily for at least three days, and in some instances for a week or longer. The section on pediatrics has been completely rewritten to increase the emphasis on the dietary treatment of the diseases of children. The section on vitamins has been revised in accordance with the latest information. The appendix now includes over two hundred pages of tables, summarizing the analyses of common foods, including nationally recognized commercial products.

This book offers a complete summary of the field of dietetics with an extensive review of its current literature. The chief objective of this work has been to supply a worth-while addition to the armamentarium of the nutritional expert, the home economist, the general practitioner and the hospital interne. In its third edition the work will be found to be far more comprehensive, better organized and more efficient. E.L.S.

Keeping Your Child Normal. By Bernard Sachs, M. D., director of child neurology research, New York. New York: Paul B. Hoeber, Inc., 1936. Price $1.50.

This rewritten edition of Sach's already well-known book is even better than the original. The ten years that have elapsed since the first edition have emphasized and strengthened the necessity for a sane, common-sense point of view in dealing with psychologic problems in children. The author takes up the problems of preventing behavior disturbances in infancy and early childhood, giving many valuable suggestions as to methods of procedure. In the discussion of the school-age child, he gives a very interesting summary of the value and possible dangers of the so-called progressive education. The chapter on truancy and delinquency in adolescents are likewise full of useful information for parents. The book ends with a long chapter on the use and abuses of psychoanalysis in which he points out the hazards of this form of investigation in children and insists that it should not be the only method of approach in psychologic problems in children but that psychoanalytic methods should be considered as merely one small avenue of approach under certain circumstances.

One cannot help feeling that if this book could be read and reread and assimilated by parents before they become parents, and by physicians before they start practice on children, the world might be a better place to live in. H. K. T.

Scrambled train orders invite disaster. So in railroading as little as possible is left to memory. Train orders must be written!

Word-of-mouth prescriptions for vitamin products invite trouble, too. If confused or forgotten, the patient may get on the wrong track by selecting a deficient product. And because appearance, taste, smell or weight cannot help the patient to select wisely, low price may decide the choice instead of what matters—certainty of full vitamin content.

That is why many physicians make it a practice to write all their prescriptions for Haliver Oil with Viosterol, and to specify ABBOTT whenever vitamins A and D are indicated. In this way physicians can be sure that their patients will receive all those vitamin units they prescribed for them.

Abbott's complete control throughout production makes certain that only highest quality fish oil is used. Abbott's rigid bio-assays assure vitamin content true to label claims. Another very important assurance of quality is Abbott Laboratories' unique background of original research and manufacturing experience in the vitamin field.

Prescribe routinely for pregnant or lactating mothers, for children and any others who may need additional vitamins A and D. Available at prescription pharmacies everywhere in 3-minim capsules in boxes of 25, 50, 100 and 250. Also in 10-cc., 20-cc. and 50-cc. vials.

★ ★ ★

ABBOTT'S HALIVER OIL with Viosterol

The Healthy Life Series. By John Guy Fowlkes, professor of education, University of Wisconsin; Lora Z. Jackson, associate librarian, Jackson Clinic, Madison, Wisconsin; and Arnold S. Jackson, M. D., Jackson Clinic, Madison, Wisconsin. Philadelphia: The John C. Winston Company, 1936.

Vol. 3. Keeping Well:

This book continues the discussions on diet but the material is stepped up to a little more mature plane. There are also interesting discussions of sanitary food-handling. Explanations as to the care of teeth, skin, etc., are interestingly given and conform to the usual accuracy of the book. Some valuable first-aid suggestions are also given.

Vol. 4. Healthy Living:

This volume carries the instructions on diet, general hygiene, exercise, etc., in a manner suitable for older children. H.K.T.

SYPHILIS IN WISCONSIN

(Continued from page 201)

a long period of time and then reports continue strongly positive in the face of all evidence of real improvement, it is terribly discouraging. It must be realized that in the use of many of these tests the procedure can be made so delicate as to amount to the detection of a scar rather than a disease. A test that is consistently positive with active disease and becomes negative with the disappearance of activity is, to my mind, a better clinical procedure. If a test is made so sensitive that a case persists forever positive in spite of reasonable therapy, it tends to make the test become the object of therapy; in other words, one is treating the test and not the patient. I have been very much interested in seeking to establish what significance can be placed upon a positive reaction; exactly how it should be interpreted in a clinical sense. For many years, in collaboration with Dr. A. S. Loevenhart, I had the opportunity to observe our complement fixation test in rabbit syphilis. Hundreds of cases have been observed. In such experimental syphilis, we could control all the factors, that is, the time of inoculation, observe the development of the lesion, see its disappearance under treatment, etc. During such a complete course of experimental syphilis periodic tests were made at intervals of several days over the course of six to eight months. We were thus able to detect changes in our complement fixation phenomenon in relation to the progress of the disease. It was after this experience that I felt particularly satisfied with our procedure. As the lesion subsided under therapy or spontaneously, our test would gradually become negative. Usually completely so three or four weeks after all clinical evidence of activity had subsided, and the rabbit became sterile. I had the interesting opportunity to observe another fact. This concerns the amount and degree of tissue reaction necessary to produce a positive blood test. There is no question that there is a quantitative relationship between the amount of tissue involvement and the amount of substance circulating in the blood that causes a positive complement fixation or precipitation test. These and other critical investigations have led me to believe that the procedure we have been using routinely is reliable and most helpful to the clinician. We are not so satisfied, however, as to rest there but are still seeking to make it better and so, awaiting such either at the hands of others or ourselves, we will continue to use the test that was employed when we cooperated with the United States Public Health Service in its effort to evaluate serodiagnostic methods used in this country.

Conclusions

The incidence of syphilis in the general sick of Wisconsin does not exceed 3 per cent.

The admission rate of late syphilis to state hospitals has been reduced over 60 per cent in the last ten years.

The reservoir of syphilis in Wisconsin can be reached by more general use of the centralized state serological service.

Cooperation among the medical profession, public health agencies and the Psychiatric Institute has brought about improvement causing Wisconsin to have a substantially lower incidence of syphilis than generally found in the United States.

Copyright 1937. Liggett & Myers Tobacco Co.

FIGHT CANCER WITH KNOWLEDGE . . . Under this slogan the women of America are uniting in the first national campaign to fight cancer and its allies, fear and ignorance—uniting in a mighty effort to save human life.

Cancer can be cured if discovered in time. Perhaps as many as half the 140,000 persons who die of it each year can be saved by the spread of truth and knowledge.

March with us in this great Crusade!

WOMEN'S FIELD ARMY
American Society for the Control of Cancer
1250 Sixth Avenue, New York City

WHAT YOU CAN DO TO HELP
Enlist in the Women's Field Army. Send $1 to the American Society for the Control of Cancer today. Seventy cents of your dollar will be spent by your State Division in cancer control work.

BISMARCK
ABERDEEN
MINNEAPOLIS
DULUTH
WAUSAU
SINCE 1913
EAU CLAIRE
STEVENS POINT
LA CROSSE
RAPID CITY
ALBERT LEA

N. P. BENSON OPTICAL CO., *Inc.*

Behind
MERCUROCHROME
(dibrom-oxymercuri-fluorescein-sodium)
H&D *is a background of*

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

ACCEPTED AMERICAN MEDICAL ASSN

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.
BALTIMORE, MARYLAND

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:—
"I am happy to have avoided any court trial. This happens to be one of those unfortunate circumstances that befalls county hospital patients and even though the responsibility may not entirely rest with the attending man, he is the one who receives the brunt of the attack."

THE MEDICAL PROTECTIVE COMPANY
OF FORT WAYNE, INDIANA
WHEATON, ILLINOIS

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE OR RENT—Good general practice. Modern home with fully equipped offices in Cameron (population 900); excellent hospital facilities within fifteen-minute drive. Splendid opportunity for married physician; reasonable if taken at once. Reason for sale: Have been offered an advanced position. Address replies to Room 16, 111 South Hamilton Street, Madison.

FOR SALE—McIntosh diathermy, good as new. Cost with connections, etc., about $350. Price now $150.

McIntosh wall plate, good as new. Cost about $250 with hair depilatory outfit, etc. Price now $75.

McKesson gas machine, good as new except rubber connections. Large size. Cost about $325 with connections for oral surgery, etc. Price now $125.

Real bargains; must be cash. Address replies to Dr. Robert L. Fenton, Baraboo, Wisconsin.

FOR SALE—X-ray developing tank, tile construction; dimensions sufficient to develop up to size 14 by 17 films. Capacity sufficient for small hospital or large office. Will sell cheap. Address replies to No. 55 in care of the Journal.

FOR SALE OR RENT — Good country general practice with modern home near Madison. Address replies to No. 51 in care of Journal.

FOR SALE—Eye, ear, nose, and throat instruments. The complete set of instruments of the late Dr. G. I. Hogue are for sale. Address replies to Mrs. G. I. Hogue, 1030 North Marshall Street, Milwaukee.

FOR SALE—Office equipment of the late Dr. E. J. Helgesen; all set up and ready for use at once. Price reasonable. Address replies to Mrs. E. J. Helgesen, Evansville, Wisconsin.

WANTED—Assistant by eye, ear, nose, and throat man. Experience not necessary but would help. Catholic preferred. Send complete personal and professional record in first letter. Address replies to No. 56 in care of the Journal.

WANTED—Position as assistant in physician's office. Experienced in physical therapy, x-ray, statistics, and general office work. Address No. 45 in care of Journal.

WANTED—Assistant on a salary basis in an established clinic in small rural community. Desire Wisconsin or Minnesota graduate with special training in internal medicine. Protestant desired. Conversational command of Scandinavian helpful, but not essential. Married man preferred. Accepted applicant may begin at once. Address replies to No. 58 in care of Journal.

LOCUM TENENS—Experienced physician would like locum tenens work for a short or long period; licensed in Wisconsin; references furnished; will not compete. Address replies to No. 54 in care of the Journal.

ASSISTANT WANTED: An excellent opportunity to assist a well-established general practitioner in a city of 1,000. Lutheran preferred. Should be able to talk German. No cash required. Opportunity to take over eventually entire practice as present physician is absent over protracted periods. Office and living quarters in same building if desired. Full details can be secured by writing No. 57, care of Journal.

LOCATION—Splendid opportunity for Wisconsin registered eye, ear, nose, and throat man. Position open immediately in Milwaukee. Address Dr. V. A. Chapman, El Paseo Building, Palm Springs, California.

LOCATION AVAILABLE in an incorporated village with a population of 700. Both grade and high schools, creamery, cheese factory, broom handle mill, and veneer mill. No financial considerations involved. Address communications to Mr. Arthur Besse, Butternut, Wisconsin.

LOCATION AVAILABLE—Excellent opening for a specialist in diseases of the eye, ear, nose, and throat in a city of 15,000 population, with a trade area of fifty miles. Have a suite of rooms in best equipped building in city; these rooms were occupied for eighteen years by eye, ear, nose, and throat practitioner. High-rated, well-equipped hospital. Address inquiries to Mr. I. Shafton, Stevens Point, Wisconsin.

Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

VITAMIN REQUIREMENTS OF MAN

I. VITAMIN C.

• Vitamin C is known to play an important role in human nutrition. Severe deficiency of this factor results in scurvy. It has been estimated by the Committee on Nutritional Problems of the American Public Health Association (1934) that the minimum daily intake of vitamin C (cevitamic acid) required to protect against scurvy increases from approximately 100 International units (5 mg. cevitamic acid) for the infant to 300 International units (15 mg. cevitamic acid) for the adult (1).

Vitamin C intake of this order of magnitude prevents the development of clinical scurvy, however, it is probably inadequate for optimum nutrition. Clear cut cases of scurvy seldom are seen in this country although some authorities believe that symptoms of a mild deficiency of vitamin C are not uncommon (2).

Referring to nutritional deficiency diseases in general it has been said that, "Almost every tissue in the body may be affected by a deficiency in a food factor" (3).

The tissues generally recognized as affected by deficiency of vitamin C are the endothelium of the blood vessels and the teeth. It has been suggested that to prevent the development of subclinical symptoms, a daily intake of 380 to 540 International units of vitamin C is required for a 130 pound adult (4).

Thus it would appear that the optimum intake of vitamin C is at least twice the amount required to protect against scurvy.

Data recently published demonstrate that the vitamin C content of human milk is dependent upon the vitamin C content of the maternal diet (5).

Hence when the diet of the lactating mother is low in vitamin C, this factor is also deficient in the milk.

The League of Nations Technical Commission recommends an intake of over 500 International units per day during pregnancy and lactation (6).

The inclusion in the diet of liberal quantities of fruits and vegetables, prepared in such a manner as to retain a major portion of the original vitamin C content, may be relied upon to supply the need for this vitamin. The value of commercially canned foods as anti-scorbutics has been repeatedly demonstrated during the past decade (7).

More recently, the vitamin C content of many commercially canned fruits and vegetables has been determined and the results expressed in International units (8).

Consideration of two factors, namely, the quantitative requirement of the human for vitamin C, and the vitamin C potencies of commercially canned fruits and vegetables, emphasizes the value of these protective foods as sources of vitamin C.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) 1934-35. Am. Pub. Health Assn. Year Book. Page 71
(2) 1933. Chemistry of Food and Nutrition. H. C. Sherman. 4th Ed. Page 421 MacMillan, New York
(3) 1936. J. Am. Med. Assn. 106, 261
(4) 1934. Nature 134, 569
(5) 1936. J. Nutrition 11, 599
(6) 1936. League of Nations Report on Physiological Bases of Nutrition, League of Nations Publication Department, Geneva.
(7) a. 1925. Ind. Eng. Chem. 17, 69
b. 1928. Ibid. 20, 202
c. 1933. Ibid. 25, 682
(8) a. 1935. J. Nutrition 9, 667
b. 1936. Ibid. 11, 383
c. 1936. Ibid. 12, 405

This is the twenty-second in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

MADISON HEADQUARTERS

State Medical Society of Wisconsin
Annual Meeting, Sept. 8, 9, 10, 11, 1936.

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

NORMANDALE

for

Neuropsychiatric Cases

An institution for the treatment of functional and organic disturbances of the central nervous system, including psychoses.
For further information address:

Dr. I. B. Shulak, Supt.
NORMANDALE
Madison, Wisconsin

WHEN IN MADISON

Visit Your State Offices

Room 305, Washington Building

one block from the Capitol

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S

770 North Water St. **Phone Daly 1461**
MILWAUKEE, WIS.

Kenilworth Sanitarium

KENILWORTH, ILLINOIS
(Northern Suburb of Chicago)

Founded by Sanger Brown, M. D., 1905

Built and equipped for treatment of mental and nervous diseases. Over ten acres of well parked and landscaped grounds. Supervised occupational and recreational activities.

JAMES M. ROBBINS, M.D., Medical Director
CHRISTY BROWN, Business Manager
PETER BASSOE, M.D., Consulting Physician

All correspondence should be addressed to Kenilworth Sanitarium, Kenilworth, Ill.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

Send for application for membership in these purely professional Associations

Since 1912

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Diagnostic Sets

For

SPRING HAY FEVER

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

U. S. S. P. CO.

Use Diagnostic Pollen Allergen Solutions, U. S. S. P. Co., for determining susceptibility to Spring Hay Fever. Consists of 3 tests on each of 8 pollens, with sterile scarifying needle.

Write for literature.

Biologicals, ampules and glandular products of highest quality.

UNITED STATES USSP STANDARD PRODUCTS

U. S. STANDARD PRODUCTS CO.

U. S. Government License No. 65
WOODWORTH, WIS.

Old Way...

CURING RICKETS in the CLEFT of an ASH TREE

FOR many centuries,—and apparently down to the present time, even in this country—ricketic children have been passed through a cleft ash tree to cure them of their rickets, and thenceforth a sympathetic relationship was supposed to exist between them and the tree.

Frazer* states that the ordinary mode of effecting the cure is to split a young ash sapling longitudinally for a few feet and pass the child, naked, either three times or three times three through the fissure at sunrise. In the West of England, it is said the passage must be "against the sun." As soon as the ceremony is performed, the tree is bound tightly up and the fissure plastered over with mud or clay. The belief is that just as the cleft in the tree will be healed, so the child's body will be healed, but that if the rift in the tree remains open, the deformity in the child will remain, too, and if the tree were to die, the death of the child would surely follow.

*Frazer, J. G.: The Golden Bough, vol. 1, New York, Macmillan & Co., 1928

It is ironical that the practice of attempting to cure rickets by holding the child in the cleft of an ash tree was associated with the rising of the sun, the light of which we now know is in itself one of Nature's specifics.

New Way...

Preventing and Curing Rickets *with* OLEUM PERCOMORPHUM

NOWADAYS, the physician has at his command, Mead's Oleum Percomorphum, a natural vitamin D product which actually prevents and cures rickets, when given in proper dosage.

Like other specifics for other diseases, larger dosage may be required for extreme cases. It is safe to say that when used in the indicated dosage, Mead's Oleum Percomorphum is a specific in almost all cases of rickets, regardless of degree and duration. Mead's Oleum Percomorphum because of its high vitamins A and D content is also useful in deficiency conditions such as tetany, osteomalacia and xerophthalmia.

Mead's Oleum Percomorphum is not advertised to the public and is now obtainable at drug stores at a new economical price in 10 c.c. and 50 c.c. bottles and 10-drop capsules.

MEAD JOHNSON & COMPANY, Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements

The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course

The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission

A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction

The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities

Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

STEPHEN E. GAVIN, Fond du Lac, President
JAMES C. SARGENT, Milwaukee, President-Elect
A. E. RECTOR, Appleton, Speaker
HENRY J. GRAMLING, Milwaukee, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
A. W. Rogers-----Oconomowoc

Second District:
Frank W. Pope--------Racine

TERM EXPIRES 1937

Third District:
Joseph Dean ---------Madison

Fourth District:
W. Cunningham ----Platteville

TERM EXPIRES 1937

Fifth District:
A. H. Heidner------West Bend

Sixth District:
S. E. Gavin------Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi----------Galesville

Eighth District:
G. R. Duer----------Marinette

Ninth District:
Joseph F. Smith------Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler-------Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson------Iron River

Twelfth District:
Joseph Lettenberger-Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert---------Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

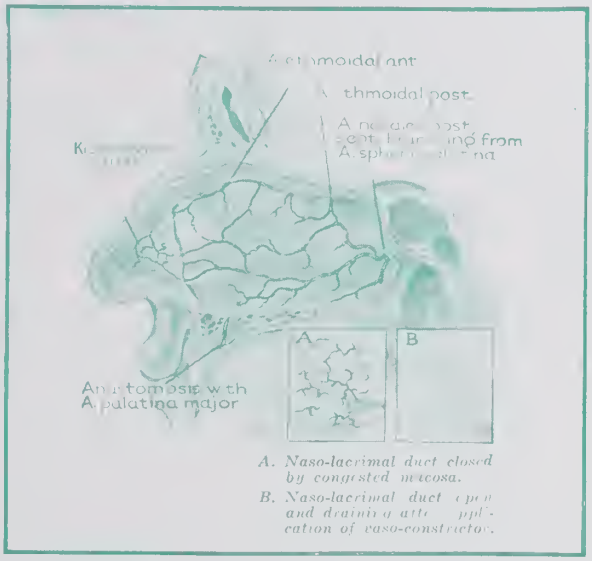
S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Killins, Green Bay.
Calumet	A. J. Wagner, Brillion	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purcell, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire-Dunn-Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	C. B. Richards, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, Blanchardville	E. D. McConnell, Darlington.
Langlade	Paul Dailey, Elcho	W. P. Curran, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	J. M. Freeman, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Williams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Oneida-Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Anderson, Plum City	A. E. McMahon, Glenwood City.
Polk	W. C. Andrews, Frederic	Earl C. Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempealeau-Jackson-Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	W. W. Coon, Walworth	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	O. A. Backus, Nekoosa	W. G. Sexton, Marshfield.

It Means a Lot ...



A. Naso-lacrimal duct closed by congested mucosa.
B. Naso-lacrimal duct open and draining after application of vaso-constrictor.

RELIEF

from the distressing nasal congestion of rhinitis, colds and sinusitis is greatly appreciated by the sufferer.

By providing comfort,

NEO-SYNEPHRIN
HYDROCHLORIDE

(levo-meta-methylaminoethanolphenol hydrochloride)

aid in the promotion of restful sleep and insure better cooperation from the patient.

Here are some of the advantages:

- No sting
- Less toxic in therapeutic dosage than epinephrine or ephedrine
- Active on repeated administration
- Stable
- More sustained in action than epinephrine

NEO-SYNEPHRIN HYDROCHLORIDE SOLUTION

1/4 % and 1 % (1-oz. bottles)

•

NEO-SYNEPHRIN HYDROCHLORIDE EMULSION

1/4 % (1-oz. bottles)

•

NEO-SYNEPHRIN HYDROCHLORIDE JELLY

1/2 % (in collapsible tubes with nasal applicator)

FREDERICK STEARNS & COMPANY

DETROIT NEW YORK KANSAS CITY SAN FRANCISCO
WINDSOR, CANADA SYDNEY, AUSTRALIA

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Re-educational Methods Applied.

Building Fireproof

Isolated, Fireproof Psychopathic Department for Acute Mental Cases

Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin

JAMES C. HASSALL, M.D.
PETER BASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office:
Tuesday Mornings by Appointment

1330 Wells Building
Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1–3 P. M

Maintaining the highest standards over a period of fifty years the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
[illegible] M.D., Medical Director
William T. Kradwell, M.D.
[illegible] Q. Howard, M.D.
[illegible] W. Osgood, M.D.
[illegible] A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. [illegible], M.D.

COLONIAL HALL
One of the 14 Units in Cottage Plan

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

The Wisconsin Medical Journal

IN THIS ISSUE

PROBLEMS OF THE DEAF
By Thomas L. Tolan, M. D.
CLINICAL PROBLEMS IN REFRACTION
By Avery deH. Prangen, M. D.
ORTHOPTIC TREATMENT OF STRABISMUS
By John B. Hitz, M. D.
MALIGNANCIES OF THE NASAL SINUSES
By Francis L. Lederer, M. D.
ETIOLOGY OF IRITIS
USE OF VACCINES AND SERA

COLLEGE OF PHYSICIANS
LIBRARY
SEP 15 1937
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 236

e XXXVI, Number 4
Washington Avenue

MADISON, WISCONSIN, APRIL, 1937
Copyright, 1937, by The State Medical Society of Wisconsin

Per Year $3.5
Single Copy 50 Cen

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

Medical Directors:
T. H. HAY, M. D. 1906-1916
J. W. COON, M. D. 1916-1934
H. M. COON, M. D. 1934-

- A PRIVATE SANATORIUM.
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES.
- CAREFULLY SUPERVISED REST.
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Additional Information, Apply To:
Medical Director, Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

A JOINT *Responsibility*

● To put this man "back on his feet" is the joint responsibility of his Doctor and EMPLOYERS MUTUALS—the Insurance Company that carries his employer's Compensation Insurance. EMPLOYERS MUTUALS take care of him financially . . . more than that, they stand ready to give his Doctor any assistance for which he may ask. The conscientious care of an injured man's Doctor is supported by the full facilities of an organization that is interested in complete recovery of every injured man.

Because we work closely with Doctors...

—we find that more and more Doctors are turning to us for their own Insurance. They recognize that the efficient, humane service, and the speed and accuracy of adjustment, carry over into other forms of Insurance—Automobile, Public Liability, Fire, etc. Insurance coverage for the Medical Profession is of especial interest to us; no stone is left unturned to give our Doctor-policyholder the utmost in service. May we give you some information on your own needs? A call to any office will bring you complete information at your convenience.

EMPLOYERS MUTUALS

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.
EMPLOYERS MUTUAL INDEMNITY CORPORATION
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY
Home Office: Wausau, Wisconsin

Appleton
Eau Claire
La Crosse

Madison
Milwaukee
Superior

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 4

MADISON, WISCONSIN, APRIL, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

Problems of the Deaf by Thomas L. Tolan, M.D., Milwaukee ---- 247
Some Clinical Problems in Refraction by Avery deH. Prangen, M.D., Rochester, Minnesota ---- 252
Orthoptic Treatment of Strabismus by John B. Hitz, M.D., Milwaukee ---- 258
Problems Involved in the Diagnosis and Treatment of Malignancies of the Nasal Accessory Sinuses by Francis L. Lederer, M.D., Chicago 263
Some Factors in the Etiology of Iritis by Lyman A. Copps, M.D., and G. L. McCormick, M.D., Marshfield ---- 268
The Use of Vaccines and Sera in the Diagnosis, Prevention and Treatment of Disease by J. E. Gonce, M.D., Madison ---- 275

EDITORIALS

Early Diagnosis Campaign ---- 288
American Foundation Studies ---- 289
Heat Exhaustion ---- 290

MISCELLANY

Page

The President's Page ---- 292
Society Proceedings ---- 293
Woman's Auxiliary ---- 294
News Items and Personals ---- 298
Society Records ---- 299
Governor Appoints Planning Council for Venereal Disease Program ---- 300
Cancer Campaign of Women's Field Army Given Direction and Assistance by State Society ---- 300
Council on Scientific Work Organized ---- 301
New Postgraduate Course, Obstetrics and Pediatrics for Southern Wisconsin ---- 301
National Tuberculosis Association Meets at Milwaukee, May 31–June 3 ---- 302
Medical Education in Milwaukee, 1848–1893 by G. Kasten Tallmadge, M.D., Milwaukee ---- 303
Books Received for Review ---- 317
Physicians' Exchange ---- 320

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]

"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physiomechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M. D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D.
L. Tennyson Peyton, M.D.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **B. P. Grimes, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

BRIGHT CHILDREN

BUT, "This Boy Brings Home A Poor Report From His School"

A timely suggestion to parents:

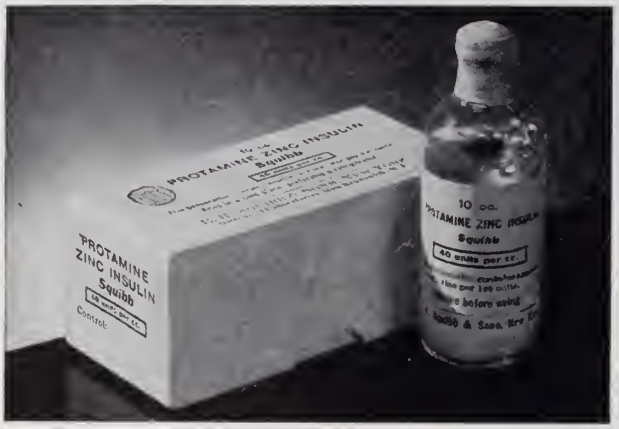
"Give the children 'a break' by having their eyes examined at least once a year, thus parents will *also* be cooperating with the teachers at school to proceed in classwork without being handicapped and interrupted through the uncorrected vision of children who have defective eyesight in the classroom."

THE MILWAUKEE OPTICAL MFG. CO.

730 N. Jackson St. and 231 W. Wisconsin Ave.
MILWAUKEE

Announcing . . .

PROTAMINE ZINC INSULIN, *Squibb*



Hagedorn, Jensen, Krarup and Wodstrup-Nielsen of Copenhagen reported, in 1935, that by addition of protamine to aqueous solutions of the active anti-diabetic principle they had succeeded in obtaining a modified, precipitated preparation having an effect much more prolonged than that of unmodified Insulin. Later it was demonstrated, at the University of Toronto, that by adding a small amount of zinc to a preparation of Insulin and protamine, both the stability of the preparation and the duration of its blood-sugar-lowering effect could be increased. These findings have led to the evolution of a product now designated Protamine Zinc Insulin. This product has been given extensive clinical trial and signifies a distinct advance in treatment of diabetes mellitus.

ADVANTAGES OF PROTAMINE ZINC INSULIN

1—The duration of action of a single dose is from about three to six times that of unmodified Insulin.

2—Hypoglycemic reactions both in children and in adults are not so frequent as those following use of unmodified Insulin. The incidence of ketosis is markedly reduced.

3—Results suggest that a somewhat less rigid dietary regimen, and an ample carbohydrate allowance may be permissible.

4—For most patients receiving the product, one injection a day is adequate.

5—Lessening of fluctuations in blood-sugar levels has a favorable effect upon patients' sense of well-being.

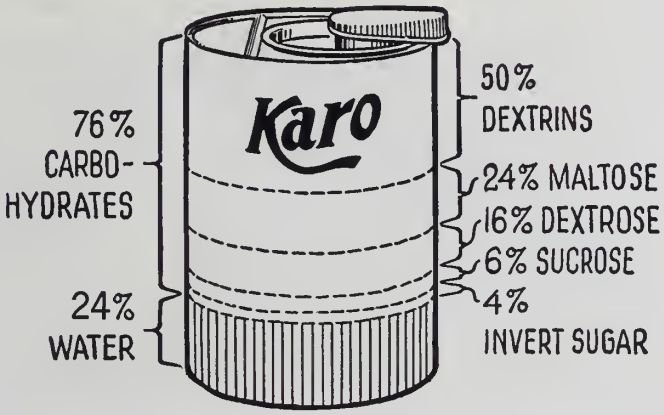
PROTAMINE ZINC INSULIN, *Squibb* complies with the rigid specifications of the Insulin Committee, University of Toronto, under whose control it is manufactured and supplied. It is available in 10-cc. vials. When this preparation is brought into uniform suspension, each cc. contains 40 units of Insulin together with protamine and approximately 0.08 mg. of zinc.

E·R·SQUIBB & SONS, NEW YORK

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

In Infant Feeding

THE DOCTOR IS CONCERNED ABOUT THE COMPOSITION OF A MILK-MODIFIER!



WHEN you prescribe Karo as the milk-modifier you are providing well-tolerated, readily digested maltose-dextrins-dextrose. The dextrins are practically non-fermentable; the maltose rapidly transformed to dextrose requiring no digestion; the sucrose added for flavor is digested to monosaccharides. Karo is prepared chemically and bacteriologically safe—non-allergic, practically free from protein, fat and ash.

★ **Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.**

For Further Information

Write CORN PRODUCTS SALES COMPANY, Dept. SJ-4, 17 Battery Place, New York, N.Y.

TO THE DOCTOR'S WIFE

•

It is our conviction that cosmetics should be selected to suit the individual's requirements. We cater exclusively to you, the individual. Our representatives are trained to help you select suitable beauty preparations and to show you how to apply them.

It is only sensible to realize that a truly beautiful skin is first of all a healthy skin and secondly a well-cared-for skin.

Cosmetics serve to enhance your appearance, to present you at your best. In this regard it is well to bear in mind that a natural appearance is by far the most charming.

Carefully selected, and artistically applied, make-up preparations lose their identity as cosmetics and become an indistinguishable part of your personality.

We want it clearly understood that we in no way undertake to treat skin disorders. If you are thus afflicted we had rather that you not use our preparations without the consent of a skin specialist. Our formulary is available to the medical profession.

A card addressed to us will be referred to the manager of the territory in which you reside. It is our pleasure to be at your service.—LUZIER'S, Inc.

Beauty Preparations by Luzier

KANSAS CITY, MISSOURI

Iron and Ammonium Citrates MERCK U.S.P.

A favorite prescription for HYPOCHROMIC ANEMIA

AVERAGE DOSE—
Metric, 2 Gm.—
Apothecaries, 30 grains

- *Odorless*
- *Very soluble in water*
- *Practically nonastringent*
- *May be given in larger doses —in water, aromatic elixir, or syrup*
- *Maximum effects*

Your pharmacist is equipped to supply your requirements for this widely used form of iron therapy.

MERCK & CO. Inc. *Manufacturing Chemists* RAHWAY, N. J.

WHEN DEALING WITH CANCER

Consider the Utility, Accessibility and

LOW COST OF RADIUM THERAPY

LEASING PLAN: Equivalent to radium ownership without CAPITAL investment. You keep possession continuously. We pay insurance and upkeep. Fifty milligrams for $22.50 per month; 100 milligrams $40. Larger amounts in proportion. New radium. Modern platinum containers.

RENTAL PLAN: Any quantity available by special delivery express. Platinum tubes and needles, and plaques, in all dosage range. The basic rate is $10 for 50 milligrams for 36 hours actual time of application.

PURCHASE PLAN: Radium in all forms available for purchase in any quantity at the lowest price in the history of the radium industry.

RADON: Radon in ALL-GOLD implants at $2.50 per millicurie.

THE COMPLETE SERVICE FOR RADIUM USERS

Telephone RANdolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building **25 E. Washington St.**

CHICAGO, ILLINOIS

NON-CANCELLABLE

Health and Accident Insurance

and

Low Cost, Guaranteed Rate Life Insurance

THE MASSACHUSETTS PROTECTIVE COMPANIES

Worcester, Massachusetts

PERCY A. TREZISE, General Agent
5000 Plankinton Building
Milwaukee, Wisconsin

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)

ANNOUNCES CONTINUOUS COURSES

MEDICINE—Informal Course first of every week; Intensive Personal Courses.

SURGERY—General Course One, Two, Three and Six Months; Two Weeks Intensive Practical Course Surgical Technique (Operative Surgery with Practice); Clinical Course.

GYNECOLOGY AND OBSTETRICS—Four Weeks Intensive Course starting May 3, 1937.

FRACTURES AND TRAUMATIC SURGERY—Informal Practical Course; Ten Day Intensive Course starting April 12, 1937.

PEDIATRICS—Two Weeks Intensive Course starting May 3, 1937.

OPTHALMOLOGY—Intensive Two Weeks Course starting April 19, 1937.

UROLOGY—General Course: Two Months; Intensive Course Two Weeks; Special Courses.

CYSTOSCOPY—Intensive Course every two weeks (attendance limited).

General, Intensive and Special Courses in All Branches of Medicine and Surgery starting every week.

Teaching Faculty—Attending Staff of Cook County Hospital

Address:

Registrar, 427 South Honore Street, Chicago, Ill.

THE ABC METHOD IN HAY FEVER DIAGNOSIS

(Yes, it's just that simple)

FILL IN THIS COUPON

THE ARLINGTON CHEMICAL CO., Yonkers, N. Y., Biological Dept.
Enclosed find $1.00 for a complete set of pollen diagnostics for testing Hay Fever case.
Date of onset of attack is_____
Date of termination of attack is_____
Signed_____ M.D.
Address_____
City_____ State_____
Wis-4

A YOU SEND US $1, with this COUPON.

B WE SEND YOU BY RETURN MAIL, specially made up for your locality and for your patient, a **POLLEN DIAGNOSTIC OUTFIT**

C YOU MAKE the tests and record them on the chart which, with directions, accompanies the set.

TREATMENT. Send us, if you wish, the results of your tests. We then can offer suggestions for desensitizing the individual case. (Correspondence is invited on any allergic problems.)

THE
Arlington
CHEMICAL COMPANY
Yonkers, N. Y.

POLLEN EXTRACTS (ARLCO), prepared for immediate use, can be promptly supplied; price lists of these, of *concentrated* pollen solutions, and of proteins, on request. **PROTEIN DIAGNOSTIC SETS** for use in asthma, infantile eczema, migraine, etc. 80 proteins, $25. 112 proteins, $35. Slightly higher in Canada. **ASK FOR** the new 36-page monograph, *The Principles of Allergy*.

THE SUMMIT HOSPITAL

Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Homelike Environment

Excellent Cuisine

Moderate Rates

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St.,
Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268–2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D.,
Frederick Menge, M.D., S. C. Plummer, M.D.

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

PROOF EVEN FOR SKEPTICS!

SO MANY exaggerated claims are made for cigarettes that it would be surprising indeed not to find skeptics in the medical profession. But even the most skeptical will yield to facts.

Philip Morris Cigarettes alone have been proved less irritating by actual tests—less irritating because diethylene glycol instead of glycerine is used as the hygroscopic agent.

Read for yourself the reports★ on investigations of irritant properties of cigarette smoke as influenced by hygroscopic agents. Then make your own tests. Smoke Philip Morris. Try them on your patients. Verify for yourself Philip Morris superiority.

★ *Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245*
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11
Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

Philip Morris & Co. Ltd. Inc. **Fifth Ave., N.Y.**

For exclusive use of practising physicians

PHILIP MORRIS & CO. LTD. INC.
119 FIFTH AVENUE NEW YORK

Absolutely without charge or obligation of any kind, please mail to me

★Reprint of papers from
N. Y. State Jour. Med. 1935, 35—No. 11, 590; Laryngoscope 1935 XLV, 149-154. Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245. Laryngoscope, 1937, XLVII, 58-60. ☐

SIGNED: _____

ADDRESS _____

CITY _____ STATE _____

WIS

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$32.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department
Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 4 Copyright, 1937, by The State Medical Society of Wisconsin APRIL, 1937

Problems of the Deaf*

By THOMAS L. TOLAN, M. D.
Milwaukee

THE term "deaf" is frequently applied to those who are deficient in hearing power in any degree, however slight, as well as to people who are unable to detect the loudest sounds. Our reference here is to those who are so far handicapped as to find hearing a distinct effort and, therefore, includes those who find it difficult to be instructed by means of the ear.

From the beginning as far as the literature is available, the deaf have been treated with less consideration than their brethren with other handicaps. In the early ages, the deaf were regarded as idiots and were killed. They had no place in the social order of things and were regarded as mere encumbrances. Later, isolated cases are on record of the deaf being taught, and in 700 A. D. there is related[1] that St. John of Beverly taught a deaf-mute to speak.

Through the ages, since then, and including the present time, the deaf as a group receive far less consideration and thoughtful care than almost any other group of people. The reason for this is obvious. As is true with most conditions that are for the most part incurable, our interest is not stimulated the way it is in many other less discouraging afflictions. Also, these cases take a great deal of time, and in a busy office practice very often it is impossible to give them the necessary attention unless one knows beforehand the type of case involved or can prevail upon the patient to return at a time when sufficient study can be given him.

I would like to go over briefly some of the problems that confront the patient and the otologist in trying to help these people.

As in every other branch of medicine, the history is of utmost importance, for it not only must include the family history of the ear, nose and throat, but must be a comprehensive general picture of the patient's health from the time of birth as well as that of the parents and other members of the family.

There are many classifications as to the types of deafness, but the most comprehensive divisions are those of a deafness which is either congenital or acquired.

One must not be misled by the statement of the parents that the child has always been deaf. It may be true that as far as they remember the child was born without hearing. It is important, however, to go into the history carefully with them as to the infectious diseases or any other illness which the child may have had. We know that measles, scarlet fever, and the other eruptive fevers, rarely cause a total deafness. In early syphilis, the impairment can be arrested if discovered in time, and improvement may even be hoped for. Prognosis in deafness due to influenza and meningitis on the other hand is bad in that it usually leaves the patient totally deaf.

The history of colds, acute upper respiratory infections, is also of importance particularly since the recent paper by Fowler[2] giving his findings to support his opinion that signs of inflammatory disease in the past may be seen in all cases of otosclerosis. This thought taken with the work of Guild[3] in which he showed otosclerotic foci in the usual sites as early as the first year postnatal life as well as Wittmaack's[4] theory of venus stasis, should encourage us to go into and give considerable credence to early infections as a positive factor in deafness.

* Presented before the 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

Thorough family history of the patient is, of course, of extreme importance and should include the history of the mother, at least the year preceding the child's birth, not only as to her general condition, but as to any history of glandular disturbances as well as medication during the period that she carried the child.

Endocrine history is very often neglected and sometimes throws some interesting and helpful light on the etiology and prognosis of the condition. We know that hardness of hearing is very common in cretins. Love[5] has stated that only 25 per cent have normal hearing. The behavior of the ear in the presence of the thyroid dysfunction, as observed in cretins, has been discussed and illustrated by Alexander.[6]

Throughout our whole relation with a person with impairment in hearing, we must remember that this condition is connected with the individual as a whole and not just isolated pathology.

Examination of the Patient

Again it is important that the last remark be remembered and the patient thoroughly examined, generally including the blood and endocrine systems. The nose and throat of the patient should be given special attention, particularly as to infection and evidence of past infection. I do not feel that tonsils and adenoids should be removed routinely in patients with impairment in hearing, but I do think that where there is a history of frequent colds, and sore throats where they were associated at all with ear complications—or if there is evidence of former infection on examination of the ear such as retracted, scarred drums—that it is much more imperative to remove them than when deafness is not present. This is also true of sinus involvement; that is, more effort should be made to clean up the condition conservatively or radically as is indicated. By this same token, I feel that a person with an impairment, having an allergic nasal condition, should be urged to have the necessary desensitization done. Relative to deviated septums, however, I am of the opinion that, unless associated with frequent colds, they are not important as far as the hearing is concerned.

It is very helpful to do a chloric test in children where there is question as to whether there is any hearing left, because, in the majority of cases where the nerve is not entirely gone, the patient will react with some nystagmus and will help us in determining the treatment and care necessary. In the testing of the hearing, in spite of all the modern gadgets at our disposal, there remains the painstaking, qualitative and quantitative examination of the hearing function. The whispered and spoken voice, the length of air deficiency, the length of bone deficiency, the comparison of bone and air conduction, the tests for ankylosis at the footplate of the stapes, as well as the quantitative tests, require, as we all know, considerable time, but if we are to give the patient intelligent advice, it is imperative that we do these tests very carefully.

I have used the 2A audiometer ever since it came out, and I find it invaluable for quantitative checking, not only at the time of the first examination, but particularly for subsequent examinations in determining the patient's progress. I feel that it is better to have the nurse do the audiometer tests as you are sure that you are getting an unbiased reading. We also do our testing in a semisoundproof room and have found it a great aid in helping the concentration, not only of the patient, but of the examiner.

Examination of the Eustachian Tube

In the large majority of cases, particularly in adults, there should be no reason why careful catheterization and inflation should not tell us the exact status of this tube in relation to the patient's impairment in hearing, particularly when we consider it with the ear, nose and throat examination and hearing tests. There is probably no part of the ear, nose and throat that is treated as badly as the eustachian tube. Many times, and I might say most times, in the progressive impairments in hearing, it is treated unnecessarily, because emphasis is placed on the negative Rinne, forgetting that in otosclerosis, after it has progressed, the typical picture is that of a negative

Rinne. If treatment of the eustachian tube is persisted in, there very often occurs what should be termed "treatment deafness" due to closure of the eustachian tube from irritation.

Having, by a careful history, general physical, and ear, nose and throat examination, determined the type of impairment, we are in a position to treat those patients who are capable of being instructed by ear. There remains, however, a large group of patients, particularly young children, who are too handicapped by impairment of hearing for such instruction. This group must, of course, be helped in some way so that their relations with their fellow men are not too difficult.

In the so-called totally deaf child, again I would stress the importance of a chloric test, as it is estimated that 30 per cent of the congenitally deaf have a residual of hearing of varying degrees, and it is in these children particularly that a great deal can be done to stimulate the nerve to better hearing and also more effective instruction.

It was not until the 16th century that any serious attempt was made to instruct the deaf. At this time, Cardan[1] stated that the deaf could be instructed by writing. The historical developments of teaching the deaf is one of the most interesting studies in medicine. Time does not permit going into it, but I would refer you to a book by Goldstein[7] where it is very ably treated. Suffice it to say that up until recently there has been controversy over the relative value of the three systems: (1) the sign method; (2) the oral method; (3) a combination of these two. At the present time, however, the sign method has been almost entirely discarded and instruction is entirely by the oral method.

Treatment

It is unnecessary to tell this group of the splendid work done by the public schools as well as by the many private schools for the deaf throughout the country. In passing, however, I would make a plea to all those who have not visited these schools to make an effort to do so, for if ever there was a group of individuals who seem to have the "patience of Job," it is the men and women who give their lives to teaching these children. They often sit with the child in their lap for hours showing them how to form different sounds, having them watch and feel mouth, tongue, different muscles of articulation, as well as the differences between inspiration and expiration upon sounds. Through this method, and without the aid of hearing, or with very little, they are very slowly teaching these children to say words so that they can take their places in the community and be less of a burden to themselves and to those around them.

In people who have learned to talk previous to their impairment, the problem is, of course, a different one. In these people, first and most important, the instruction is that of lip reading. This is a very tedious and often discouraging procedure, and it is only with the help and encouragement of the entire family that the patient can be kept interested long enough to learn sufficient to be of practical value to him. However, once mastered, it is of great help to the patient, not only from the standpoint of reading lips, but also because it actually helps the hearing by removing the strain of listening and allowing the patient to make better use of the hearing he has. Just as the touch system helps the blind people, lip reading helps the deaf. As is true of the oral schools, there are available now both public and private schools for the teaching of lip reading, and in practically no community can it be said that a teacher is not available.

Having mentioned the most important treatment in these patients (oral and lip reading), it is very often necessary to further help the impairment by the use of mechanical devices. There are on the market now any number of ear aids, and a great deal of advertisement has come out as to the relative value of machines utilizing bone conduction and air conduction. Many companies are also stressing "prescription machines." It has been my experience, however, that with few exceptions the selecting machine cannot be anticipated entirely by the relative amount of hearing by way of bone and air. Very often one finds a person whose bone conduction is

increased but who will not accept a bone conduction machine. The opposite is also true. I feel that the patient should be given an opportunity of trying several machines before a decision of purchasing one is made.

Another method of treatment which has been stressed the last few years has been the vibratory and sound machines. Most of you are familiar with this type of apparatus. I feel that as yet the work done has not been sufficient to allow us to tell accurately the types of cases that will be helped, and I feel that great care should be taken to eliminate the cases that we know might be harmed. For a number of years I have used the radio on these patients, asking them to connect their old head pieces and to listen in daily to some music. Objection might be raised to this on the basis of overstimulation, but that is true of any form of treatment. However, if the patient is asked to turn up the radio to the place where he hears the music comfortably or without any after discomfort, we quite occasionally find that there has been some improvement especially for conversational voice. Whether this is teaching the patient to listen more carefully or actually helping the nerve, in my opinion, is of very little importance as we should be primarily interested in the patient's ability to hear conversational voice.

Having determined that the impairment in hearing is of the type that cannot be helped by treatment, or, on the contrary, is apt to be a progressive affair, there still remain two very important duties for the otologist: first, to acquaint the patient with the condition. It is well in this connection to go into detail if possible with a responsible relative and to give the patient only sufficient information to have him carry out the program you have in mind for him. It is often a good thing to have these people come in occasionally for a check-up and some form of treatment in order to prevent discouragement.

The second duty is that of trying to readjust these people. In those who have just come to appreciate their condition, a great deal can be done by the family and close friends. However, that large group who have had impairment for some time, having gotten over the acute reaction, are apt to be discouraged easily, become morose, and very suspicious of any suggestions in the way of treatment. This latter attitude is very apt to be the fault of the otologists as these people come to us very hopeful, and after a series of treatments in various offices, find themselves worse, rather than better.

A great deal of help can be received if, in your community, you are fortunate in having a League for the Hard-of-Hearing that functions as such. I mean by that, that the league should not be a league of deaf people whose attitude toward their condition is that of a person who has given up, but it should be a league made up of members, who, understanding their condition, are willing not only to help themselves, but to help others. When you are in New York, I would suggest your visiting the New York League for Hard-of-Hearing. There certainly is exemplified what a league can accomplish. Its services include:

Maintenance of offices and clubrooms.
Promotion of lip reading education. Lip reading practice.
Employment bureau and vocational guidance, adult and junior.
Hearing aid service.
A fund to provide suitable aids for those unable to purchase them.
Recreation and entertainment.
Demonstration school, lip reading and voice conservation classes for children.
Otological clinics for the study and prevention of diseases of the ear.
Information regarding quacks and fakes.
And many special services.

and, I am quoting a personal communication from their executive secretary, Annetta W. Peck:

"I have sketched our organization because twenty-two years of pioneering has convinced us: (1) that the hard-of-hearing must do their own work and thus work out their own salvation; (2) that the organization for the hard-of-hearing must consider itself community service and for that reason must have social workers, preferably hard-of-hearing, and must also work very closely with otologists and educators; (3) that an

organization which gives genuine service to the otologists of the community through assistance with their patients' social problems, and also by maintaining an informative hearing aid service will receive the cordial cooperation of the medical profession; (4) an organization can easily make itself the center of information covering this field and thus create and hold the respect of those in the community. Such an organization will also keep its members informed and will build up among them a body of opinion which is mentally healthful and which fosters loyal cooperation with their officers."

In conclusion, as an otologist, I would ask that we try to put ourselves in the deaf person's place as he comes to us and consider all angles of his problem,—mental, physical and sociological. Finally, that the examination be so carefully done and the advice so understandingly given, that when the patient goes to one of your colleagues later, as he will do, the advice will be essentially the same.

REFERENCES

1. Education and Welfare of the Deaf and Dumb. Encyclopedia Britannica. 14th ed. 7:101-104.
2. Fowler, E. P., Jr.: Important Points in Four Theories on Otosclerosis. Tr. Am. Otol. Soc., 21:38-52, 1931.
3. Guild, S. R.: Early Stages of Otosclerosis. Arch. Otolaryng., 12:457-483 (Oct.) 1930.
4. Wittmaack, K.: So-called Experimental Hen Otosclerosis. Acta oto-laryng., 14:228-242, 1930.
5. Love, D. Kerr: Deaf-mutism. p. 58.
6. Otosclerosis (Resumé of Literature from 1928-1935). pt. 8, Endocrinology, Ann. Otol., Rhin. & Laryng., 45:223-227 (March) 1936.
7. Goldstein, M. A.: Problems of the Deaf. St. Louis: The Laryngoscope Press, 1933. 573 pp.

DISCUSSION

Dr. E. G. Nadeau (Green Bay): The deaf child is well provided for by the public school system. However, in the preschool age, as soon as the diagnosis of deafness is made—and it is difficult to do this under the age of two years—the parents should begin to give this child special attention. He should be spoken to as though he were normal, he should be given normal companionship, taught to watch the facial expressions of others, and simple lip reading instruction should be given early—one syllable words at first.

In other words, these parents of deaf children should "read up" on methods of early training. This has been carefully worked out, and is readily available through the American Society for the Hard-of-Hearing. Goldstein has well summarized the A. B. C.'s of home training for the deafened child.

Our schools for the deaf are well organized, and many children enter high school and some even go on to institutions of higher learning as the result of the preparation they receive particularly in lip reading. It is phenomenal the proficiency that can be attained. One can speak with these students and not notice that they are deaf.

The deafened adult, however, presents a real problem. He has heard well until his gradually progressive involvement—of whatever nature—begins to make definite changes in his ability to hear.

Our responsibility does not cease when we have made a diagnosis of incurable progressive deafness. We must encourage and guide this individual in the process of rehabilitation before his malady has gone too far. He must be prepared for deafness. He should be interested in the art of lip reading, and should join a class so as to become proficient in the art. Get him to communicate with the American Society for the Hard-of-Hearing. He will become interested in this splendid movement to help the deafened, and he should be encouraged to take active part in its activities. Much valuable information is obtainable from this source and every otologist should be conversant regarding the work of this association.

Lip reading is not a recently developed aid to the deaf or a new system of special education. As early as 1684 it was in rudimentary form—taught by Doctor John Bulwer in Europe. In America, in Virginia, John Braidwood instructed in lip reading in 1812. The first book published on the subject was by a Doctor Schwartz of Dresden in 1841.

Lip reading, or expression reading, has been developed on thoroughly scientific principles, and in its present stage of development offers the deafened opportunity for social contact which very largely compensates for the impairment or loss of so important a function as that of hearing. It largely supplants the sense of sight for that of hearing, and is undoubtedly simply a development of an unconscious act practiced by many people with normal hearing.

Visual concentration is the valuable means of acquiring lip reading. It is more readily acquired by the deafened adult than by the congenitally deaf child who has never heard the human voice. The deafened adult has already mastered normal and fluent speech. Lip reading is merely a new means of continuing his social contacts. When he first realizes his handicap he is usually nervous, discouraged, panicky, and maladjusted. But on acquiring the art of lip reading he soon realizes that he has not been entirely cut off from his fellow men, readjustment is gradually established, and his outlook becomes happier and more hopeful as he realizes its practical value.

The vocational school is the proper institution in the small communities to establish these classes. Our own school has one evening class twice a week for adults. The teacher in charge is one of those teaching in the day school operated by the city

schools. These evening classes have been a boon to those who have attended.

It is found that at first many adults hesitate to join, not wishing to admit their impairment, but with encouragement from the physician I am sure this hesitancy can be overcome. Naturally, it affords the best method for particularly the partially deafened to keep in social contact with the normal individual.

By the older manual methods his communication was entirely limited to those who knew the manual alphabet.

Last of all, recourse may be had to an instrument. Many excellent types are on the market. The ear trumpets and hearing tubes have been replaced by the various electrical devices which utilize the telephone principle to obtain their efficiency.

Air or bone conduction is utilized and frequently a patient will require much encouragement to accustom himself to these devices. The otologist should supervise the fitting of these instruments. It should be done under his direction and advice. Many patients give up in despair because of the unnatural and intensified sounds produced, and a period of readjustment is necessary. This should not be left entirely to the vender of these instruments, for, if it is, it will be only a short time before we will have another group of technicians calling themselves audiometrists and encroaching on the field of otology as the optometrist has in that of ophthalmology.

Let me repeat, then, that our responsibility does not cease with our diagnosis of incurable, progressive deafness. We should guide the patient in keeping up his social contacts with those of normal hearing, and should give him all the help necessary to take advantage of the remarkable advances made in recent years in rehabilitation of this type of patient.

Some Clinical Problems in Refraction*

By Avery deH. Prangen, M. D.

Section on Ophthalmology, The Mayo Clinic, Rochester, Minnesota

IN THIS paper I would like to discuss some of the common problems which cause difficulty in everyday practice. All of us, I am sure, have many such matters in mind but hesitate to bring them up for comment, thinking them too commonplace and trivial. Attention to trivial details and commonplace matters is, I believe, essential to good refraction. A gathering such as this seems to be just the place for a frank interchange of ideas and experiences. I would like to bring before you certain problems which have caused me difficulty and discuss their possible solution. I hope you will do likewise, for from such an interchange of ideas I always go home the richer.

Refraction is too often relegated to the background in discussions of ophthalmic practice; yet it constitutes perhaps 75 per cent of the average practice. As such it would seem to deserve at least even consideration with other phases of our work. From good refraction we may have as many satisfied patients and create as favorable an impression as from anything else we do, or vice versa. Refraction well repays the care and time spent on it; it is one of the mainstays of our practice.

Refraction calls for a painstaking mathematical accuracy of technic combined with clinical judgment, that valuable art, the anlage of which is a physiologic point of view: the ability to visualize the human machine as a whole, each part in relation to the other, and to see the mechanism at work, sensing dysfunction, incoördination, conflicts, defects and organic troubles in their true relation and importance to the individual as a living mechanism. In other words, we should not confine our interest, knowledge, and attention to the narrow limits of our special field, so that we go off on a tangent and fail to comprehend the theme of the complete clinical picture. Diagnosis and treatment in a specialty must fit in accurately with the numerous and varied factors making up the many jagged parts of the complete clinical picture. Failure to do this is perhaps the outstanding criticism of specialization. After all, we are physicians practicing ophthalmology.

With the foregoing considerations always in mind, refraction has for its major purpose the alleviation of symptoms of ocular distress by proper fitting of glasses. Local medicinal treatment, orthoptic exercises and

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

surgical measures are necessary and are valuable adjuncts when intelligently used. In the prescribing of glasses, science and the art of practicality must be deftly mixed, ever remembering that the acid test is the patient's approval. The prescribed glasses must give clear, ready vision and enable the patient to carry on his work and play with comfort and with a minimum of fatigue. To accomplish this constitutes the fine art of refraction.

Pertinent Relationships

In the practice of refraction, much trouble and dissatisfaction can be avoided by keeping in mind certain pertinent relationships existing between the ophthalmologic, general medical and neurologic aspects of the case. The ocular symptoms of which a patient complains may be but reflex or mirrored disturbances from a disordered mental or physical state. The eyes, by virtue of their origin from and their intimate connections with the brain and central nervous system, are very prone to reflect disease and functional disorders of these structures. Neurasthenia, psychoneuroses, traumatic neuroses, hysteria, mental inadequacy, and so forth usually cause symptoms of ocular distress which glasses or treatment of the eyes will not cure. Glasses prescribed for these unfortunate people bring nothing but trouble for the doctor. Increased intracranial pressure from tumors and abscesses cause decreased vision, and glasses are not the answer; optic atrophy and optic neuritis do likewise, and the cause must be looked for elsewhere than the eyes. The ophthalmoscope and perimeter must be constantly employed to avoid such pitfalls. Toxic amblyopia from tobacco, alcohol, syphilis and other poisons may be interfering with vision, and the oculist must be quick to note their presence. Retinitis from arteriosclerosis, hypertension, pregnancy, anemia, diabetes, kidney disease, and so forth may be causing visual difficulty. The asthenic, run down, and generally ill patient naturally has no eye comfort. Those recovering from recent general surgical and medical treatment often complain of inability to use their eyes. All these and many neurologic and other disorders secondarily affect the eyes, and the alert oculist hesitates to prescribe glasses until such time as the patient has been restored to a reasonable degree of health.

Age and senility also bring about a decreased ocular capacity. One should change glasses in this group with caution, as dissatisfaction with new glasses is the rule. It is not possible to enable these patients to use their eyes as much as they wish in comfort with any glasses. Individuals working at high tension, creating nerve exhaustion, have much ocular fatigue, and glasses will not correct this. The local, social, economic and familial status must also be taken into consideration. Thus when patients come in for refraction, the oculist must consider all these various factors and attempt to evaluate the patient. Is it feasible or not to undertake to give relief by ocular treatment or glasses? By such differentiation unpleasantness can be saved the oculist and serious trouble and dissatisfaction can be saved the patient.

A problem which has interested me for a long time is the basic difference clinically between various types of eyes. There is a sharp contrast in the visual capacity and reactions of the emmetropic, myopic, hyperopic, and astigmatic eyes. One cannot expect the same performance from all eyes. They differ from one another in their reactions and capacity, the same as one person varies from another. It is important and useful to keep this in mind when evaluating ocular symptoms and attempting to prescribe for them. The clinically ideal eye is perhaps the eye which does not vary too far on either side of emmetropia and with not too much astigmatism; in other words, an eye near the normal in the frequency distribution curve of refractive errors. These eyes, be they slightly hyperopic or myopic, carry on their functions as a rule very well.

However, the more eyes deviate away from normal toward the higher degrees of ametropia and the more they are accompanied by marked astigmatism, the more difficult becomes their task of carrying on their function. Glasses, as we know, do not make eyes normal; also, glasses do not enable eyes with marked errors of refraction to perform with the same ease as those eyes near normal. It is therefore natural to expect

that markedly ametropic eyes, though well corrected, should give much more discomfort and have less capacity for ease of function. The normal eye is an effortless mechanism, and the possessor of such is to be envied. The markedly ametropic eye, on the other hand, has to be whipped and spurred to make it accomplish its tasks. When in addition there exists anisometropia and antimetropia, differences in amounts and kinds of error in the two eyes, the difficulty of proper ocular performance becomes even more exaggerated. In these markedly anisometropic and antimetropic eyes there exists an essential and intrinsic irritability which even the best of corrections usually fail to subdue completely. People with these eyes often get into a bad state ocularly and mentally through lack of understanding of the true nature of their ocular mechanism. Not obtaining relief, they relentlessly pursue comfort and go from doctor to doctor. Having tried numerous corrections and much varied advice and continuing to be uncomfortable, it is natural for them to assume that there is something radically wrong with their eyes. They come to feel that, eventually, they are faced with ocular disaster.

Now although this seems a logical conclusion to them, we know that it is not true. It is a false conclusion drawn through misinformation and lack of understanding. It makes a fine basis, however, for a profound ocular neurosis. If the oculist understands the nature of such eyes and their essential irritability, it is relatively easy to put the patient at ease. Eyes like these are a nuisance, not a menace. They are an inherited handicap which takes a little more perseverance and effort to overcome. Even with the best correction possible, they will never be any too comfortable, but there is no harm to the eyes in making them work. The fatigue, ocular and nervous, which results from this effort is relatively harmless when understood and philosophically endured. It is the price to be paid for the things which one's ambition wishes to accomplish. The eyes will not in any way be harmed by such usage. Viewed in the light of this reasoning, and when understood by the intelligent patient, the problem of irritable anisometropic, astigmatic eyes is not difficult. In my experience, the reaction to these distressed people to this explanation is both grateful and satisfactory. Yet they constitute a rather large, troublesome and difficult group of people in the average practice.

In connection with anisometropia and antimetropia, attention must be called to the work being done on aniseikonia, or size-image difference. This is a most important work and should be watched. It is still in the experimental stage and has not yet been reduced to clinical application for those of us doing office practice. Without doubt, in the near future the studies of this subject will have been thoroughly evaluated and put on a clinical basis.

There is also a definite and basic difference between hyperopic and myopic eyes. I formerly thought that "farsighted" and "nearsighted" were misnomers; I believe now, however, they are well named. There is no doubt that myopic or nearsighted eyes do near work with ease and efficiency, whereas distance vision is more difficult for them. With hyperopic or farsighted eyes, the reverse is true. It is true that both can be made to do all kinds of work, but each excels in its own field. If they are called upon to do the opposite from that for which they were designed, naturally more difficulty will be encountered.

The ability of the eyes to focus properly, both for distance and near vision, is always a determining factor in ocular comfort. The status of the accommodative power and its relation to convergence is one of the most important problems in refraction. A knowledge of the state of accommodation of each individual is absolutely necessary to proper treatment. It determines not only the needs of the patient in strength of lens, but by what methods he should be examined, and what, if any, and how much of a cycloplegic should be used. One should measure the accommodative power in every case, the data thus obtained being indispensable in the evaluation of the eyes in question. As one does this, one comes to rely more and more on this useful information. The normal accommodative values have been worked out very

carefully by Jackson[1] and Duane[2] and are available to use as a guide. To avoid repetition, I would refer you to two previous publications[3,4] which deal with this subject.

In discussing abnormal accommodative states, the following classification, modified after Howe,[5] may be useful:

1. Normal, near point of accommodation average for age.
2. Subnormal, near point below average for age.
   a. Paresis.
      (1) Static or premature presbyopia.
      (2) Dynamic or accommodative insufficiency.
   b. Paralysis.
3. Spasm, relative excess of—near point near normal.
   a. True spasm } associated with ametropia.
   b. Spasticity }
4. Abnormally powerful or sustained—near point close.
   a. Actual excessive, with ametropia.
   b. Actual excessive, with emmetropia.

From this classification I would discuss briefly dynamic insufficiency, spasm and abnormally powerful accommodations. Certain instances of these three forms of accommodative disturbances are most interesting. Although not common, when they do occur they cause marked difficulty for the patient and are likely to be overlooked by the oculist.

Subnormal accommodation manifests itself by inability to do near work or to sustain it, in younger people fifteen to thirty-five years of age. As people of this age are supposed to have ample accommodative power, the condition will not be noted unless the accommodation is routinely measured. The symptoms are those of accommodative asthenopia, and the accommodation will be found to be consistently below the average normal for the age. In these cases there seems to be a lack of that reserve potential accommodative power that usually is held in readiness to make near vision effective. Analysis of cases at the clinic showed the condition to be due to asthenia, debilitating conditions and focal infection, particularly dental sepsis. In some cases it seemed that the person was naturally possessed of low accommodative power. Treatment was to relieve, if possible, the source of the trouble, after which the accommodation in some cases returned to normal; others, however, had to be given more plus lens for near work. For a fuller discussion of these cases I would refer you to a previous publication.[4]

Spasm of accommodation is, I believe, closely related to dynamic subnormalcy. In a previous paper[6] I reported thirty cases. Like subnormal accommodation, this condition occurs in younger people, aged from fifteen to twenty-five years. Characteristic of the difficulty is the apparent rejection by these eyes at the postcycloplegic test of proper correction of the hyperopia or a tendency to exaggerate the true myopic correction, as found with cycloplegia. At the postcycloplegic test, or during a manifest refraction, they will accept minus lenses when their real error is plus. The name "spasm" applied in these cases is really misleading as it perhaps implies excessive power; in reality, however, the condition seems to be one of asthenic irritability. These eyes are extremely uncomfortable unless relaxed by proper correcting lenses instead of pseudomyopic correction. The symptoms are blurred distance vision, headaches, ocular discomfort and inability to use the eyes without fatigue. The accommodative near point in most cases is about normal for age, although in a few cases it is intermittently too close. The primary cause of the phenomenon appears to be long-continued strain from attempting to adjust the ciliary mechanism to insufficient or improper correction, and this underlying cause is reinforced by secondary factors, such as functional disorders and focal infection. It is to be noted that the disturbing factor of anisometropia is almost always present. The nature of the trouble seems to be a fatigue cramp of an overworked and usually asthenic ciliary mechanism. In some respects a weak ciliary muscle and a spastic ciliary muscle are much alike. When subjected to undue fatigue, the weak muscle gives up whereas the spastic muscle continues to act in a spasmodic and inefficient manner. In either instance we have evidence of accommodative asthenia. The treatment of spasm is the ordering of proper correcting lenses, balancing the anisometropia. These eyes are crying for a more accurate and balanced

correction. At first patients appear to refuse this correction, but usually within a few days or with the help of a little more homatropine they accept the correction with gratitude. As a matter of fact, since I realized that the condition was one of asthenic irritability, I seldom use any more cycloplegic to relax the eyes to the new correction. The eyes adjust themselves very quickly. Of course one should bear in mind the age of the patient and not try to blur distance vision by too much spherical correction, as these patients are usually young; also, anisometropic eyes are essentially irritable eyes in spite of any correction. This the patient should also understand and not rush to get a new correction every time he has a relapse of symptoms, which occurs frequently. Stress, strain, and fatigue make the spasm prone to recur. It will soon disappear again, however, with the continued wearing of the proper glasses and a return of physical and mental balance.

One occasionally sees instances of abnormally powerful or sustained accommodation which are the opposite of the conditions just described. It may occur either in associaton with ametropia or emmetropia. When seen with emmetropia the condition is one of late presbyopia, the patients being fifty and even sixty years of age and not seeming to need reading glasses. One sees such instances every now and then. In association with ametropia one sees powerful accommodative mechanisms which seem to be able easily to carry marked hyperopic errors even at the ages of thirty-eight to forty-three years without using correcting lenses, or possibly using only low plus lenses for near work. Aside from interest in the unusual occurrence of such cases, the clinical point is the folly of trying to force glasses on these fortunate people or to give them more than a mere minimum of correction for their needs. Their accommodation is such that they need little or no assistance.

Balance and imbalance of the extra-ocular muscles has always been a diffuse and difficult ophthalmologic problem. Diagnosis and treatment seem often obscure. Personally, I think it possible to make it more simple by refining still further the usual conception of diagnosis. Too often muscle diagnosis stops with the statement that the patient has exophoria or esophoria, for distance vision or in near vision. No further effort is made to coordinate the relation of the phoria in distance to that found in near vision; also, the relation of the phoria to the powers of lateral and vertical duction.

There appear to be four steps in the completion of a refined muscle diagnosis: (1) the finding of the presence of a phoria (esophoria, exophoria, or hyperphoria), (2) the determination of the degree of deviation for distance and for near, and a comparison of these figures, (3) a study of the duction powers, and (4) a study of the behavior of the individual muscles in their primary field of action. With these data at hand one is in position to make an exact clinical diagnosis. The actual numerical figures recorded are not of so much importance, I feel, as is a careful comparison of the existing relationships of the foregoing data to one another. By putting together the information found from these four maneuvers, the clinical diagnosis becomes both possible and apparent. All anomalies must be disturbances of convergence or divergence of the visual axes, either laterally or vertically. I have arranged a graphic representation of this phenomenon (table 1). Following this line

TABLE 1

EXCESS AND INSUFFICIENCY UNDER VARIOUS CONDITIONS

Deviation greater in:	
Distance vision	Near vision
1. Exophoria	1. Exophoria
a. Divergence excess	a. Convergence insufficiency
2. Esophoria	2. Esophoria
a. Divergence insufficiency	a. Convergence excess

of reasoning, one can easily determine just what type of anomaly one has to deal with. It is sometimes true that deviations are the same for distance and near. This is evidence of a compensated condition of long standing which nature has rendered less troublesome by causing it to become continuous or constant. A little further study along the foregoing lines will enable one eventually to figure out the true diagnosis.

Having made the diagnosis, treatment, whether optical, medical or surgical, becomes much more clearly indicated. The type of treatment is naturally a matter of training, experience and personal preference. It is constantly changing and improving. I firmly believe, however, that a more refined and accurate differential diagnosis greatly simplifies the proper handling of the case.

An important point in the handling of cases of imbalance is the constant association of anisometropia with these conditions. It might well be possible that uncorrected and improperly corrected errors of refraction, particularly when anisometropic, are the source of irritation and fatigue which brings about the imbalance. If so, then proper correction of these refractive errors is the first and most important step to be taken in the treatment of apparent muscle imbalance. Many times this is all that is necessary. If symptoms persist after a thorough trial of proper glasses, one must of necessity consider other measures, such as orthoptic exercise and surgery. In a previous paper[7] I discussed the relationship between the differential diagnosis and the selection of operative procedures. I believe that a careful and refined differentiation of cases makes possible the selection of that combination of surgery best fitted to each individual case. By this process of differentiation and selection it seems possible to obtain not only better cosmetic results, but also to accomplish the ideal of more normally functioning eyes.

Conclusion

In conclusion, in doing refraction one must consider the relationship between the general medical, sociologic, neurologic and ophthalmologic aspects of the patient. The intrinsic characteristics of the various types of eyes should be understood, and it should also be understood that anisometropic eyes are essentially irritable. A knowledge of the normal and abnormal accommodative states is essential. The problem of imbalance of the extra-ocular muscles can be clarified by a more refined differential diagnosis. This process also simplifies the application of treatment. In the treatment of imbalance, proper refractive correction is the first, and often the only, step necessary. Surgical treatment should be selective, and such selection is greatly aided by careful differential diagnosis.

BIBLIOGRAPHY

1. Jackson, Edward: The Amplitude of Accommodation at Different Periods of Life, and its Relations to Eye-strain. California State J. M., 5:163-166 (July) 1907.
2. Duane, Alexander: Fuchs' Textbook of Ophthalmology. Philadelphia: J. B. Lippincott Company, ed. 8, 1924, pp. 178-211.
3. Prangen, A. deH: What Constitutes Satisfactory Cycloplegia. Am. J. Ophth., 14:665-671 (July) 1931.
4. Prangen, A. deH: Subnormal Accommodation. Arch. Ophth., 6:906-918 (Dec.) 1931.
5. Howe, Lucien: The Muscles of the Eye. New York: G. P. Putnam's Sons, vol. 2, 1908, p. 26.
6. Prangen, A. deH: Spasm of Accommodation: With Report of Thirty Cases. Tr. Sect. Ophth. A. M. A., pp. 283-292, 1922.
7. Prangen, A. deH: Surgery of the Rectus Muscles of the Eye; Selection of Operative Procedures by Differential Diagnosis. Tr. Am. Ophth. Soc., 32:273-283, 1934.

DISCUSSION

Dr. Mark E. Nesbit (Madison): I know we have all enjoyed Dr. Prangen's paper. He is always very practical and brings forth many points we can use in our everyday practice, especially in our refractive work.

I think that while refracting a patient it is very easy to forget that the eye is a part of the body. In so doing lenses are changed again and again before some systemic or nervous element is found as the actual cause. You see cases come in with a half dozen pairs of glasses, often of different tints, and still have a multiplicity of eye complaints. In this type reassurance and attention to their general health will often straighten them out rather than another pair of glasses.

The emphasis which Dr. Prangen has placed on accommodation, I think, is of real importance. I was fortunate in being able to work with Dr. Prangen and he never failed in stressing this feature in refraction, namely, to find out the state of the patient's accommodation. When you have learned this you will know how to handle your cycloplegics, if the accommodation is influenced by some systemic disease, etc.

I believe, in a paper Dr. Prangen presented on the West Coast some years ago, he stressed the indiscriminated use of cycloplegic. One point was, that it is unnecessary to use so much atropine and for such a long time to paralyze the child's accommodation. Often two drops at divided periods is suffi-

cient. If there is any doubt as to its effect, it is simple to determine the amount of accommodation reserve by placing in the trial frame a plus three sphere, then taking the amplitude of accommodation. There usually will be found around one diopter. This would be true even if larger amounts of atropine were used. Between twelve and forty years as a rule homatropine is used combined with cocaine in a gelatine disk. One or two disks are used depending on the state of the patient's accommodation. Then again, I feel as Dr. Prangen does that cycloplegics are stopped too early. Often people consulting you have bifocals at too early an age. They find them bothersome and not an answer to their problem. If these cases were dilated with a 2 per cent homatropine, there will often be found sufficient hyperopia in reserve to take care of their accommodative weakness. At first they will experience a blurring of distant vision but with time the eye will relax and the vision clear up.

Being on the watch for accommodative changes you will often run into the unusual ones which Dr. Prangen has just spoken of. They are difficult to discover at first but, as the trouble persists, you can soon recognize its nature. By discovering this your patient will stop going from doctor to doctor looking for relief.

In connection with ocular muscle unbalance, I have always been taught that an accurate refraction is first indicated. If the case is operated upon, as a rule the refractive error will change. Therefore, following the period of healing it is important to refract the patient again and make the necessary changes. I do not think it will help to bring in any of my own cases of abnormal accommodative errors.

I feel you have all gained some knowledge, as I have, from this paper.

The Orthoptic Treatment of Strabismus*

By JOHN B. HITZ, M. D.

Milwaukee

THE stereoscope was invented by Wheaton in 1838. The first attempt at training of binocular vision with this instrument is not definitely known. By 1880, however, according to the literature, its use had become relatively common. For the next decade or two there was a gradual increase in the use of this method of treatment for heterophoria and heterotropia. The early part of this century, Worth published his well-known monograph on the subject, and following this there was a great wave of enthusiasm for the orthoptic treatment of strabismus. After a few years it was realized that fusion training was not a cure-all and even Worth himself admitted a few years ago that he had not obtained the results he had anticipated in the earlier part of his career. At the present time we seem to be at the crest of another wave of enthusiasm. There are two very definite reasons for this revival of interest. First, the development of new instruments which have enlarged the scope and increased the accuracy of fusion training, and second, the development of orthoptic clinics in charge of trained technicians who have been able to relieve the practicing ophthalmic surgeon from the long drawn-out drudgery of orthoptic training.

In discussing this subject it is impossible to completely divorce orthoptic or fusion training from the other accepted types of therapy for strabismus. I refer to the use of glasses and treatment of amblyopia ex anopsia by occlusion or atropine, and surgery of the extra-ocular muscles. I have no intention of discussing surgery in this paper. However, I feel that a few words concerning the other two methods of treatment at this time are not irrelevant.

I wish to urge very strongly the full correction of hyperopia and astigmatism in cases of internal strabismus. By full correction I mean that lens which will give the greatest vision under atropine cycloplegia. There is no doubt that some cases corrected in this manner will not have maximum visual acuity, due either to inability of the patient to completely relax the ciliary muscles, or to a slight error in a retinoscopic refraction. However, it is surprising how much greater correction of the angle of

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

deviation of strabismus one will obtain if he prescribes the full correction rather than subtracting one-half or three-fourths of a diopter from the original refraction findings.

One hears occasional discussion whether atropinization or occlusion of the fixing eye is the wiser to use in attempting to correct amblyopia ex anopsia. In my mind there is no logical reason for any controversy on this subject. If the use of atropine in the fixing eye will cause the deviating eye to fix, and the original fixing eye to deviate, then I believe atropine is the logical choice. If atropine does not cause the deviating eye to fix, it is of no use whatsoever, and occlusion must be resorted to. We have had no luck with occlusion applied part of each day, and after a few attempts have used constant occlusion almost entirely. I should like to show a slide of a few cases we have treated in this manner. *(Treatment of amblyopia by occlusion or atropine. Twenty-four cases treated. In eighteen cases vision improved from an average of 0.06 to an average of 0.6, and of these thirteen were treated by constant occlusion, five by atropine. Six cases unimproved. All these cases were treated by occlusion.)*

While Worth's age limit of seven or under for the occlusion treatment of amblyopia must be kept in mind, I feel that it is worthwhile trying in children over seven. Of four cases in which we developed definite improvement in vision, two were eight years of age, one nine and one ten. In each case the illiterate 'E' test with an individual 'E' which could be rotated in any direction was used. I feel that a great deal of success in developing binocular vision in these children is dependent upon carrying the treatment of amblyopia to the point where the vision in each eye is equal.

The bugaboo of orthoptic training itself in the past has been false projection or abnormal retinal correspondence. By this term we are referring to false projection of binocular images, not to extra-macular perception in one eye, or so-called false macula. To quote from Travers: "In normal retinal correspondence, one macula does not correspond with the other but with some eccentric point, and there is developed a new system of corresponding points around this point. It is as if the whole system of correspondence had been shifted through a varying number of degrees." In other words, a child, who has good vision in each eye with true macular perception in each eye used singly, when asked to place the bird in the cage in the amblyoscope will superimpose the images at a definitely different angle than the true objective angle of his strabismus. While the existence of false projection in squint has been known for a good many years, the importance of it has not been stressed until recently. G. Braun emphasized this point in 1928. The reason for the neglect of this most important factor in strabismus in the past was undoubtedly the difficulty in diagnosis. This has been cleared up by the development of the newer instruments, such as the synoptophore and its close relatives the synoptoscope and orthoptoscope. These instruments are nothing more than glorified amblyoscopes mounted on a stand. They possess two features, however, which are marked improvements on Worth's original instrument. First, the eyes of the patient are at all times easily visible to the operator, secondly, there is a flashing device so that the light in each tube can be turned on or off quickly. It thus becomes a relatively simple matter to measure the angle of strabismus and find whether the normal fusion point does or does not correspond to this angle of deviation. The frequency of abnormal retinal correspondence in concomitant squint is quoted variously in the literature, from 40 to 70 per cent.

Travers, in an excellent monograph printed by the British Journal of Ophthalmology in 1936, has analyzed the value of orthoptic training. He divided his cases into three groups. The first, abnormal correspondence cases, secondly, cases with normal correspondence not improved with fusion training, and thirdly, cases with normal correspondence improved by fusion training. In the first group of those with abnormal correspondence, he attempted to train twenty-one cases. In only three out of these

twenty-one cases was he able to develop a normal correspondence and even in these three cases fusion ability seemed to be unstable. He concludes that orthoptic training is of no value in cases of abnormal retinal correspondence. In the group of normal retinal correspondence cases he had fifty-three which were improved by orthoptic training. He observes in his discussion that 85 to 90 per cent of these patients who were improved by fusion training were discovered to have had good fusion power after five treatments, and 77 to 87 per cent who failed to improve with fusion training had poor fusion after five lessons. He concludes that it is not advisable to give orthoptic treatment to any patient who does not have normal retinal correspondence and who does not show good power of fusion in the early stages of treatment. He further states, that it appears that fusion training can improve the function already present, but cannot develop that function.

Before reporting our own results in a small series of cases I would like to digress a moment, to comment on the marked variation in reports made by men who are interested in fusion training. In the first place the words "improvement" and "cure" of strabismus mean different things to each writer on this subject. Secondly, in some cases the factor of glasses and occlusion alone has not been given sufficient credit for the improvement, and that credit automatically goes to orthoptic training. Thirdly, there seems to be confusion in the literature on the term stereopsis. This, to some men, seems to mean ability to perceive depth in a stereoscope, or modification thereof, with complete disregard in the angle of strabismus. To others it means binocular single vision with depth perception. In reporting our cases those reported as cured have no manifest deviation at six meters or thirty-three centimeters, using the screen test, and also have the ability to fuse the Worth four-dot test at six meters. Some of these cases reported as cured may have some residual heterophoria. Cases reported as improved are those in which there has been a definite increase in the amplitude of fusion, plus the reduction in the deviation of strabismus, more than could be reasonably accounted for by any recent change of lens that the patient might have had. I believe there will be no accurate valuation of orthoptic training until some standard criterion of improvement and cure is established.

Case Reports

In the past year in the Milwaukee Children's Hospital orthoptic clinic, we have been able to follow some twenty-eight cases of internal strabismus and five cases of external strabismus. These cases were treated in the clinic once or twice a week and wherever possible home treatment was given with a hand stereoscope. There was no selection of cases made other than the fact that no case was accepted for treatment unless the vision in the poorer eye was at least 50 per cent of the vision in the better eye. Chart 1 shows our results.

CHART 1

INTERNAL STRABISMUS TWENTY-EIGHT CASES

	No. of cases	*Cured*	*Improved*	*Unimproved*
Status at onset of treatment false projection	5	0	0	5
No fusion	5	0	2	3
True proj. amplitude poor	4	0	1	3
True proj. amplitude good	14	8	5	1

EXTERNAL STRABISMUS

	No. of cases	*Cured*	*Improved*	*Unimproved*
Status at onset of treatment true proj. amplitude good	5	3	2	0

We have divided the cases into four groups rather than under three. Those with definite false projection, those with no demonstrable fusion, those with true projection but poor amplitude in the first few visits, and those with true projection and good amplitude in the first few visits. Travers has classed those cases of actual false projection and no fusion together with one group. We did not feel that this grouping together was logical, however, as can be seen by the slide the re-

sults in either case were clearly poor. In some of the cases reported as improved operation had been done and were classed as improved, because following operation a rather good amount of fusion amplitude was developed. None of the eight cases reported as cured was operated on. However, three of these eight were cases which showed intermittent binocular vision before orthoptic training was started. In external cases one of the cured cases was operated and one of the improved cases was operated. I realize that any opponent in orthoptic training can ask, "How do you know eleven cases reported as cured would not have developed binocular vision without orthoptic training." This, of course, is a question which will not be answered conclusively until someone is able to study a very large series of cases under orthoptic training with a large series without training as a control. In two cases we have had, in an earlier series, we purposely stopped orthoptic training just as binocular vision seemed to be developing. In both cases there was a definite retrogression in the ability to fuse the Worth four-dot test. Further, a definite correlation between increasing fusion amplitude and decreasing the angle of strabismus would seem to indicate that the orthoptic treatment was the deciding factor promoting improvement. Of course there are many factors which may account for the presence of false projection and poor amplitude of fusion. They can, however, be disregarded in actual orthoptic work since the clinical test of the patient's ability to fuse gives us all the information necessary. It may be noted that no differentiation has been made between alternating and monocular cases. We are in agreement with Travers on this point that the so-called true alternating squint of Worth and Peters is rare and is a happenstance rather than a clinical entity. If a child with equal vision and equal refraction starts squinting at an early enough age he will develop alternating strabismus with no fusion sense.

Conclusions

At this point I should like to emphasize the prognostic and diagnostic value of orthoptic training. This phase as far as I can determine has not been brought out before in the literature. Regardless of how one feels towards orthoptic treatment, it would appear to be distinctly advantageous to know, in cases where surgery is contemplated, whether the patient has a good chance for developing binocular vision or whether that chance is remote and the operation is to be a purely cosmetic one. I feel that this knowledge would give a more intelligent approach to the surgical problem of strabismus. For instance, one would feel far more justified in correcting a small internal strabismus surgically, if one were sure such a procedure could be expected to result in binocular vision.

We feel that orthoptic training in strabismus should, at the present time, be considered an adjunct to the other methods of treatment in strabismus. There will be relatively few cases in which fusion training alone will effect a cure. However, we feel that when used in properly selected cases it will definitely increase the percentage of patients regaining binocular vision. As improved methods are found for preventing and correcting false projection, the number of cases aided by orthoptic training will increase. It is not a substitute for surgery and will tend to increase the amount of surgery done rather than decrease it, since one will be more willing to operate on minor deviations in those cases which show good prognosis for binocular vision. We feel further that this type of work should be in the hands of a technician either in a clinic or in one's private office, since the average practitioner has not the time to carry out the treatment thoroughly. In Milwaukee there has been sufficient interest shown by the members of the Milwaukee Oto-Ophthalmic Society so that we have established such a clinic for private cases referred from the ophthalmologists. This clinic has been functioning since January 1, 1937. In the future such a clinic may be able to do some of the other arduous labors such as perimetry. There is also a good deal of work that can be done in the training of young children with reading problems.

Summary

1. The full correction of hyperopia in internal strabismus will often produce much greater reduction in the angle of strabismus than the correction in which one-half to three-fourths of a diopter is subtracted.

2. Prolonged occlusion of the fixing eye is of definite value in correcting amblyopia ex anopsia. The nearer one approaches equality of vision in the two eyes the better chance there will be for a good functional result.

3. Orthoptic training is of twofold value, first, as a method of diagnosis and prognosis before surgery. Second, as an adjunct to the other methods in treating strabismus giving a higher percentage of good functional results.

4. To anyone who is interested in orthoptic training it is suggested that Travers' monograph, printed by the British Journal of Ophthalmology, in 1936, contains some very valuable information.

DISCUSSION

Dr. F. A. Davis (Madison): Dr. Hitz's interesting paper is most timely. The revival of interest in orthoptic training as a cure for strabismus is quite general throughout the ophthalmological world, and further study and evaluation of results so far attained is essential to progress in this field.

The value of orthoptic training as a cure for squint has not been definitely and firmly established. While some authorities are enthusiastic over it, others equally well qualified condemn it as valueless. Unquestionably, judging from a study of the rather voluminous literature which has been published, some good has been accomplished by this method of training. In the first place, as pointed out by Dr. Hitz, it has stimulated and brought about a more accurate study of the squinting eye. Certain principles have been laid down which so far, in this perplexing field, serve as a guide to aid those who have not the time, patience, or energy to carry out exhaustive studies in every case of squint. To briefly enumerate: First, only cases of squint under 20° have any chance of cure by this treatment, with rare exceptions. Second, of these the lower the degree of the squint and the shorter duration of the defect, the better the chance of cure. Third, of these squints of low degree only those in which there is so-called normal correspondence or an absence of false projection is there any hope of real cure. Even with good fusion, if the angle of squint is above 20° the chances of improvement are very poor. Further, 50 to 60 per cent of all cases of squint, according to Travers, show false projection or abnormal correspondence, and this is most likely to occur in squints of high degree. Before normal fusion can occur, normal retinal correspondence must be present. Fourth, the visual acuity of the squinting eye must be equal to or somewhat approach that of the fixing eye. Travers, in his most excellent monograph, cited by Dr. Hinz, states he did not attempt orthoptic training when visual acuity of the poorer eye was less than six-twelfths with correction. Pugh states vision should be six-twenty-fourths. You are familiar with what regularity the high monocular squinting eye is highly amblyopic. Fifth, the influence of age is a most important factor. With visual acuity below six-sixtieths in children over six or seven, improvement is most unlikely. A large group of our cases, therefore, is immediately eliminated, as so many of our monocular squints of high degree are amblyopic. Unless vision in these cases can be improved by occlusion, orthoptic training is useless. Pugh reports success, however, in adults where the visual acuity was good and equal in both eyes. The later the onset of the squint the more favorable the prognosis for correction by treatment.

What, therefore, shall be our attitude towards this fairly new and much talked of procedure? Our first thought with all of our squints, as stressed by the author, is careful and thorough refraction under atropine as early as one year of age, followed by the prescribing of full correction. I observe the child after six weeks or two months, and if no improvement in the squint is noted, I re-atropinize the eyes and add bifocals. As you all know, many squints of low grade disappear with the use of proper glasses. If there is no relaxation or improvement after several months, I discontinue the atropine and bifocals and occlude the fixing eye. The child is observed from time to time at two to three month intervals until about three months have elapsed. If no improvement or tendency to alternate develops, I abandon occlusion as a constant procedure and urge the mother to use it two to four hours daily, at meal time, when the child is playing with blocks, during indoor games, etc.

Our first problem is usually that of improving visual acuity, by atropinization with the use of bifocals, and by occlusion to overcome amblyopia. If the patient has fair visual acuity and second grade fusion is present, a stereoscope is prescribed for home use, with either the Guibor or Wells charts. The patient returns from time to time for a check-up, and if no real improvement is seen and the angle of squint shows no improvement, operation is advised.

The diagnosis of false projection or abnormal correspondence requires some instrument such as the synoptophore or orthoptoscope, and does not always prove an easy task. Much time is frequently consumed in making these tests, aside from the time required for treatments, so the services of a special technician or assistant are essential if any really satisfactory results can be anticipated.

We have recently equipped a special room in the eye department at the Wisconsin General Hospital for this work, and are at present making an effort to obtain a trained technician. We have a fairly complete equipment, including the orthoptoscope, though there are still things to be added. It is my hope that after the department is thoroughly established, ophthalmologists in the city and the surrounding towns may avail themselves of the services of the technician, if they so desire, so that a diagnostic test and recommendations for treatment may be obtained.

While the correction of squint by orthoptic training apparently has a very limited field, it should prove a great aid in diagnosis of the type of squint with which we are dealing, and, further, give us some prognosis with regard to ultimate cure by operation.

Apparently, a preliminary training before operation is of value in those cases with normal projection in that it may train the fusion sense and aid in the return of binocular vision after the eyes are straightened. Its use is further indicated for operation to aid in keeping the eyes straight.

I wish to congratulate Dr. Hitz for his efforts in this field, and I feel his report should encourage others to investigate this type of treatment. Dr. Hitz does not mention in his paper the ages of his patients, their visual acuity, nor the degree or duration of the squint. I believe further data in this regard would be most helpful in evaluating his results.

Problems Involved in the Diagnosis and Treatment of Malignancies of the Nasal Accessory Sinuses*

By FRANCIS L. LEDERER, M. D.

Head of the Department of Laryngology, Rhinology and Otology, University of Illinois, College of Medicine, Chicago

IT IS impossible to discuss malignancy generally without making an evaluation upon the basis of the region involved. The same cellular invader may respond in an entirely different manner in the various parts of the body. Entering into this consideration is the type of tissue, skin or mucous membrane, cartilage or bone; the possible interference with function and the proximity of the tumor site to vital structures. The normal vascularity and lymphatic distribution of the parts are likewise of practical importance. The importance of site and accessibility of the areas under discussion for recognition and therapeusis cannot be underestimated.

The origin of sinus tumors is not easily determined. There has been an indiscriminate application of the term "primary" with reference to malignant growths of the sinuses. With rare exceptions the pathologic process is such as to render it difficult to determine whether the growth springs from the alveolar process, the lateral wall of the nose, the ethmoids, or some other structure. Most nasal carcinomas arise in the region of the middle turbinate, at the embryonic site of the outpouching of the sinuses, and are epidermal in character.

It is my belief that a malignant neoplasm of a nasal sinus is seldom, if ever, confined within a mathematically calculated area. By virtue of the characteristically slow growth of a neoplasm within a bony cavity, it is observed for such a time as to fall within the classification of inoperability when the diagnosis finally becomes self-evident. Before the onset of symptoms such as pain, a sense of fulness, nasal blockage, offensive odor or bleeding, and external signs, such as swelling, could one suspect that a malignant growth is attached to the bony walls of the antrum. Unfortunately, inspection, auscultation and palpation, anterior and posterior rhinoscopy, endoscopy, transillumination, roentgen examination, and biopsy do not always facilitate a conclusive diagnosis in early cases. Furthermore, confusing clinical pictures are produced by intercurrent or coexisting diseases, particularly by those which cause swellings about the maxilla and orbit. Syphilis and tuberculosis may obscure the diagnosis of cancer thereby delaying proper therapy. Peculiar histological responses of the various tissues to tumor growth and infection may also hinder a correct diagnosis.

* Presented before the 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

Pathologic Considerations

The present trend to evaluate the treatment of cancer on the basis of the histological picture has been applied in tumors of the sinuses. The tendency on the part of pathologists and clinicians to reach an accord in the classification of tumors and their clinical significance is by no means universal. There is in some quarters a tendency to view the problem as being of very little scientific importance. Nevertheless a close and cooperative study of the microscopic character of a tumor, together with the observation of its clinical behavior, is logically the method of attack. We may thus be in a position to judge the future course of a case and determine the proper therapy.

The locale of the sinuses with their intricate network of bony cells, hidden deep recesses, and close proximity to vital structures, presents a problem somewhat different than any other area. The interference with physiologic functions is a late manifestation which is of no advantage in early diagnosis. Not alone that, but a neoplastic process in the posterior group of sinuses may tend to grow in such a direction so as not to make its appearance within the interior of the nose. In this connection hyperplastic-like tissue should be suspected of being malignant, particularly if it has an increased tendency to bleeding.

The types of malignant neoplasms occurring in the region of the sinuses may be classified as: (1) Epithelial types including hornified squamous cell, non-hornified squamous cell, transitional cell, lympho-epithelioma and basal cell carcinoma; (2) Connective tissue types, including the different types of sarcoma (spindle cell, round cell, polymorphous, melanosarcoma, osteoblastic, fibrosarcoma and myxosarcoma); (3) Mixed type (glandular form); (4) craniopharyngioma with malignant changes; (5) Giant cell tumor associated with parathyroid adenoma.

It is of value to have a definite plan for grading tumors as to their cellular activity and effect upon the human organism. We join with others in emphasizing what is called "a clinical index of malignancy" on the basis of location, reaction (which implies the duration and rate of growth and the extent of the local as well as the general manifestations of the disease), type of tumor (as studied histologically), the age of the individual, and whether or not the patient has had previous treatment. The treatment, as well as the prognosis, is dependent on a number of these well-known factors; viz., the degree of malignancy, the type of neoplasm, presence or absence of lymph node involvement and metastasis, fixation of the growth, anatomic relation and location, renal and cardiac efficiency, the general condition of the patient, the presence or absence of anemia, the size of the growth, the age of the host, the duration of the disease, the direction of the growth, the presence or absence of loss of weight, the presence or absence of cellular differentiation, lymphocytic infiltration, fibrosis and hyalinization, and, finally, the extent of the destruction by previous therapy. In the final analysis, these points coincide with the practical clinical experience in the treatment of malignant tumors.

Symptomatology

The symptomatology of malignant growths of the sinuses has been of little aid in estimating the extent of involvement. Contrary to the generally accepted view, very few cases ever experienced sinus disease prior to the insidious onset of nasal blockage, epistaxis and headache. It is interesting to note that the majority of the patients are first subjected to some type of surgery for the relief of the nasal obstruction.

After the tumor has developed and the normal contour of the nasal cavity has been destroyed, the marked facial deformity leaves very little to the imagination in arriving at a correct diagnosis. Large masses of polyps which protrude from the nares and even cause external deformity are frequently revealed by biopsy to be benign superficially, but continued histological studies of the pedicle disclose the underlying factor of malignancy. It has been the all too frequent experience of clinicians to find that biopsies do not always render possible a conclusive diagnosis; certainly,

they should be repeated if there is the slightest suspicion of a malignant neoplasm.

The extent of sinus tumors should be determined by careful roentgenological study, as encroachment on the bones of the skull may be greater than the clinical examination reveals.

The presence of a malignant growth on the opposite side must also be carefully considered. The development of sinus cancer is slow, metastasizing infrequently. There is a definite tendency of such tumors to invade the meninges and other intra-cranial structures. While the symptoms usually vary, in the main the points to be noted are unilateral nasal obstruction, mucopurulent or serosanguineous discharge, headaches (usually frontal), nasal hemorrhage, fetor, cranial nerve involvement consisting of sensory disturbances (neuralgic-like pains, paresthesia and anesthesia), ocular disturbances (proptosis, limitation of motion, papillitis and atrophy), and olfactory disturbances (anosmia and parosmia); and external deformity.

Diagnostic Methods

Roentgenologic study merits special mention as a diagnostic method because of the unsatisfactory role it plays in the interpretation of the invasive quality of the neoplasm. On many occasions the tumor has been found far more advanced than was shown by the gross changes in a careful radiologic examination.

The means employed in the diagnosis of malignant disease of the sinuses are: a careful history, inspection, palpation, auscultation, anterior and posterior rhinoscopy, endoscopy of the interior of the nose, transillumination of and roentgen examination of the sinuses, possibly with radiopaques, sinus irrigations and biopsy excisions with a microscopic study of the tissue.

Such an approach to the diagnostic problem, while complete, is often insufficient for arriving at a conclusive diagnosis, every means of differentiation at our disposal being required in addition. The clinical picture of malignant neoplasms of the sinuses is so confusing that the condition must be differentiated from every entity producing pain, nasal obstruction and discharge, cranial nerve disturbances and swelling about the face.

Although all forms of malignant growths of the frontal sinuses have been reported, they are relatively uncommon. Usually the frontal sinus is involved secondarily from the other sinuses and a primary malignancy of the sinus is of infrequent occurrence. The symptoms of frontal sinus malignancy are similar to those of a chronic frontal sinus disease but may be of a variable character. The course is at times so insidious as to make an early diagnosis difficult. Even the advanced signs, such as prominence of the eyeball with diplopia, amaurosis, headaches, hemorrhages and pain are common to other disorders. A more or less foul discharge from the nose when it is streaked with blood and detritus may be suggestive. The x-ray studies may suggest bone destruction which should, of course, make the clinician suspicious of malignancy.

Sarcoma and epithelioma of the ethmoidal cells is occasionally observed as a primary process. In epithelioma the growth may be very insidious and be discovered only when sufficiently advanced to cause nasal obstruction. A fetid discharge streaked with blood is suggestive. Sarcoma usually progresses more rapidly and is apt to be attended with free and, sometimes, dangerous hemorrhages.

Prognosis

The growths lying anterior and inferior to a plane passing from the inner canthi in a direction backward and downward to the mandibular angles give a better prognosis. This applies mainly to those cases in which the neoplasm originates from the alveolar process. In contrast the areas superior and posterior to the plane described offer a more difficult problem in management. Neoplasms well localized anteriorly in the antrum are not frequently encountered.

It is well to remember that cancer is a different disease in each organ; we recognize not only a difference in the site of the tumor, but also a difference between the tissues of the same organ and between the cell types in the same tissue. The gradings of

carcinoma are presented in direct proportion to the proliferative, infiltrative, metastasizing and death-dealing properties of a given tumor. In many instances, however, we have found these criteria not to be absolutely true, as determined by the further progress of the patients. It would seem, therefore, that the other factors in the clinical index (metastasizing quality and extension to vital structures) are more dependable and must be considered collectively, especially when trying to determine the prognosis.

Treatment

There is a great disadvantage in developing therapeutic agents and applying them long before all factors are known about them. This type of progress is slow and uncertain, forming the substance of the unscientific and pessimistic literature of former years. It is quite natural that in the attempt to combat a disease as terrifying as cancer, many methods in confusing array be presented. Some are employed empirically, while a very few seem to have definite basis for their use.

It is well that we free ourselves from the hopeless prognostic teachings of former years. That would, of course, add to the prevalent inertia of the profession in attacking the cancer problem. Any attempt to inculcate the type of vicarious stimulation such as is employed in discussing the problem with the layman should be discouraged. This attitude would be a serious one to impress upon the profession, which already has adopted the extremes of the aforementioned passive hopelessness and allowed themselves to assume the indifferent, if not self-satisfied feeling of finality in progress.

Surgery, electrosurgery and irradiation combined, have given fair results in malignant tumors of the nasal sinuses, especially those of the antrum, in spite of the fact that 80 per cent have been termed inoperable because of invasion of vital structures.

X-ray. In the sinus region, deep therapy (200,000 volts) has been found to be ineffective. It has been employed with discouraging results. The transitional types of cancer and the lymphoepitheliomas respond more favorably to x-radiation. These tumors, although highly malignant, "melt away" under therapy but recur more prominently than at first. They then respond with less sensitiveness to irradiation, or not at all, and ultimately lead to a fatal outcome. From such experience, it should be concluded that the x-ray dosage was interrupted for too great a time. Such growths (and perhaps all carcinomas as well) should be subjected to persistent radiation of maximum dosage, otherwise failure is inevitable.

The status of irradiation in general is by no means settled. The accepted methods have been employed painstakingly and openmindedly without success, but clinicians have been willing to withhold final judgment until more perfected technics are offered. This applies to radium as well as to x-rays. Several major difficulties in regard to the use of irradiation in the treatment of cancer of the sinuses are: (1) The inability to recognize the extent of the neoplastic invasion. (2) The fact that the majority of the tumors are radioresistant. (3) The extreme difficulty and lack of certainty of irradiating tissue encased in bone and growing in many directions.

Radium. In itself, radium has been unsatisfactory because of the difficulty of access to the growths and the resulting inflammatory changes which complicate the picture from a therapeutic standpoint. When the soft tissues of the cheek, including the skin, are infiltrated, they should be removed.

This permits inspection of the cavity over a period of months or years, facilitating future attack on any suspicious granulation tissue. Exposed osseous structures are slow in healing and often bony sequestra separate only after many months. Radium may be used in all of its forms but best by needles or radon seeds (intratumor), contact application (intracavitary), or as the pack or cannon. Interstitial application is uncertain and inaccurate and the teleradium application has to traverse too great depth into osseous tissue to be effective. Furthermore, a study of the pathologic anatomy does not justify this method. After removal of the

essential malignant mass, radium is most effective when placed (2,500 to 3,500 millicure hours) in the constructed cavity 1 mm. platinum screening. In addition, collar irradiation around the neck is also of definite merit.

It is due to our lack of knowledge of a specific cause of malignant disease that all sorts of empiric methods of therapy have been employed. It will suffice to recall the administration of bacterial products, vaccines, nonspecific proteins, enzymes, tissue extracts, vitamins, chemicals, escharotic pastes, dyes and radioactive substances, to appreciate the extent of therapeutic groping in the struggle against cancer and other malignant neoplasms. All these measures have failed except our present-day scientific triad: surgery, x-ray and radium.

Surgery. Surgery is the foremost therapeutic measure whenever its use is possible. Electrosurgery, or to be more explicit, the employment of special high-frequency currents for dissection or coagulation, has not only become a most valuable adjunct to classic surgery but bids fair to completely replace the latter in the management of malignant neoplasms.

Frequently electrosurgery alone will prove curative, so that irradiation will not be required. But more often even the most radical operative procedure will have to be augmented by the utilization of x-rays or radium, while under certain circumstances irradiation alone will remain as the sole applicable measure.

Electrosurgery. The characteristics of high frequency surgery has been so clearly known to most physicians that we may restrict ourselves to a few general remarks. The question whether to treat a malignant neoplasm by electrodissection or electrocoagulation or by a combination of the two procedures rests on individual circumstances. In general, it may be stated that whenever a tumor can be completely extirpated by electrodissection, it is the method of choice. Electrocoagulation must be resorted to when electrodissection can be carried out only inadequately. Technical obstacles to electrodissection do not differ from those encountered in classic operations, but it will be found that occasionally electrodissection can be carried out even where ordinarily classic surgery proves exceedingly difficult. The technic of electrodissection in an anatomic sense is identical with classic dissection.

The question whether in the case of deep-seated lesions one should approach the malignant neoplasm by classic exposure and then take up the cutting or coagulating electrode, or begin and end the entire procedure electrosurgically, may be left to the individual's decision. Many surgeons prefer to perform electrosurgery throughout. Thus they will electrosurgically divide the skin and soft tissue down to the lesion and complete each operation with the high frequency current. Theoretically it would seem that in malignant disease the safer procedure is to begin and finish every operation electrosurgically, but we have seen no ill effects from a classic approach to a malignant growth, provided the growth itself was not incised.

A careful surgical excision through healthy tissues, with avoidance of morcellement curettage, is the best means of approach for exposing the parts to be resected. In neoplastic infiltrations of the hard palate and alveolar process, electrocoagulation combined with radical resection of the osseous structures should be carried out. A wide external exposure is conducive to successful results when tumors invade the nose and its sinuses. Such an approach can be had by the sublabial route, as is usually employed in radical antrum surgery. After adequate exposure, the neoplastic mass is thoroughly electrocoagulated. Tumors which are more deeply situated and widely distributed must be exposed by external incisions along the lateral attachment of the external nose through the lip, occasionally along the infra- or supraorbital margin, depending upon the extent of neoplastic invasion. Electrosurgical excision is followed by coagulation of all lymphatic bearing tissue. The entire dissection should proceed with anatomical certainty, and at no time should a pulling or tearing morcellement technic be employed, as has been previously emphasized. Irradiation, or direct cavity application of radium, is the postoperative measure of choice.

Malignant growths of the frontal sinus if seen in time may be operable. Unfortunately, their progress is insidious and they are not always recognized early enough to permit successful operative measures. The sinus should be exposed widely through the external route. No cosmetic thoughts should enter into consideration. As much of the mass is removed as is possible and the remainder coagulated by surgical diathermy. If the dura is invaded, the frontal lobe is to be fully exposed. The skin flaps are sutured to one side and the wound left wide open for contact radium applications. Radium may be used in this region with impunity because the dura is quite resistant.

Malignant growths have often progressed sufficiently to involve many surrounding structures when first seen, a fact which greatly compromises the chances of recovery by surgery or irradiation. External operation by radical resection going wide of the tumor invasion ofttimes necessitating the removal of the orbit and superior maxilla is indicated here. The posterior ethmoid cells are most frequently involved, which accounts for extension into the antrum, orbit, pharyngeal vault, and in its terminal phase, the cribriform plate and the cranial cavity. Emphasis is again made that when surgery is the sole method of treatment contemplated, the most radical procedures must be employed, such as resection of the superior maxilla and exenteration of the orbit. The necessity of avoiding damage to the ocular bulb, the danger of radionecrosis, the menace of an infected tumor in a closed cavity, and the radioresistance of many of these tumors amply explain why cures have been limited in some of these cases.

Complications of surgical and radiological treatment are postoperative meningitis when the meninges are invaded, as well as edema and abscess formation. There likewise may be orbital involvement due to extension of the tumor, and infection and softening of the bulb. Primary and secondary hemorrhage complicate the picture. Radionecrosis of bone is a factor in delaying the healing process and preventing the repair of the extirpated structures. Refinements in the technic of electrosurgery have materially helped the chances of cures. If a percentage of cures was realized by the crude application of a hot soldering iron the results expected should be far better with an improved armamentarium.

DISCUSSION

Dr. Wellwood M. Nesbit (Madison): It was my privilege, a year ago, to listen to a similar paper by Dr. Lederer. As a result of that, being impressed with the presentation in which he gave us more of his results, I made every effort to secure Dr. Lederer to come here and present this paper.

I think it is important we have uppermost in our minds the fact that cancer may be back of the nasal symptom instead of the usual infection which we are treating routinely every day. He could have given us more of the end results he has secured with the use of electrosurgery and radium. Today, with the advancement of that technic, tumors can be destroyed with considerable safety and without the mutilation that occurred a few years ago with the old soldering iron.

I wish to thank Dr. Lederer for coming here and presenting this most excellent paper.

Some Factors in the Etiology of Iritis*

By LYMAN A. COPPS, M. D., and G. L. McCORMICK, M. D.
Marshfield

TWO questions regarding the causes of iritis are of special interest at this time. One has to do with the role of focal infection; its actual importance as well as the mechanism by which it may produce the eye lesion. The second concerns our ability to determine the type of infection, toxin or sensitization which produces the iritis by the pathologic changes seen in the eye.

Arlt in 1850 gave the first statistics on the systemic causes of endogenous iritis and Irons and Brown[1,2] established the fact that focal infection bears an etiological relationship to iritis. Since this time most reports have been concerned with the relative im-

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

portance of various foci. It has been implied, and more or less accepted, that the uveitis is due to a bacterial invasion coming from the focus. This is substantiated by Rosenow and Nickel[3] who have satisfied Koch's laws in this regard, also by Irons, Brown and Nadler,[4] A. L. Brown[5] and others, who have cultured streptococci from the eyes of rabbits with experimentally produced iritis. Rosenow and Nickel,[3] Berens, Nilson and Chapman[6] and many others have produced iritis in rabbits by the intravenous injection of organisms taken from the foci of humans with this disease. Traut[7] has cultured streptococci in the blood of patients with it. This does not prove the presence of the streptococcus in the human iris. Nearly all investigators who have made cultures of the human aqueous in iritis have found it sterile. It is also pointed out that acute iritis is rare in septicemia.

There are some things about the behavior of iritis which are not in harmony with our ideas of bacterial infection, especially the sudden clearing of an intensely severe iritis following the removal of a distant focus. This fact has been mentioned by Irons[8] who has said that the mechanism of production of chronic and recurrent iritis includes allergic as well as embolic factors; by Kolmer[9] who has pointed out that the theory of bacterial metastasis to the affected part does not fit with the clinical picture. A. L. Brown[5, 10, 11] demonstrated that the production of iritis is rather by a sensitization process than by bacterial invasion and has found that cultures of the aqueous from active cases of iritis even with hypopyon are sterile. Friedenwald[12] contended that iritis is principally an allergic reaction. He further pointed out that allergy is separable from immunity and that sensitization has a deleterious effect upon healing particularly in tuberculosis uveitis, its effect being to break down healthy granulation tissue around the focus.

As near as can be determined, nonspecific foreign protein affects iritis by a desensitization process in which case the improvement following its use points to an allergic mechanism in its production. This is especially true if it can be shown that results following foreign protein injections are as good or better than after the removal of foci of infection. If desensitization can be specific as in tuberculosis, of course results should be better; since we have a specific desensitizer in tuberculin, the diagnosis of the type of iritis is important. Except for tuberculous iritis, there is little mention of the characteristics of the eye in their relationship to classification or etiology. We believe that there are significant changes to be found in the majority of cases and that from the examination of the eye each one can be more or less accurately classed as tuberculous, luetic, rheumatic or nonspecific.

Case Observations

With these ideas in mind we are reporting twenty-five cases of iritis, all of which were thoroughly studied a year or more ago, long enough to give time for recurrences.

The cases are arranged on the chart which gives the essential findings in each case. In analyzing this chart the causes of the iritis are found:

Tuberculosis	7—28%
Syphilis	2— 8
Nonspecific	16—64
(rheumatic)	
Teeth	4—16
Tonsils	1— 4
Teeth and tonsils	2— 8
Tonsils and cervix	1— 4
Gonorrhea	1— 4
Gonorrhea, teeth and tonsils	1— 4
Sinuses	1— 4
Undetermined	4—16
Diabetes	1— 4

The findings in the eye in nonspecific or rheumatic iritis may be classified:

Exudate	
Purulent	2
Fibrinous	13
Serous	1
Keratitic precipitates	
Brown	7
Brown and grey	5
Pus	2
None	2
Synechiae	
Superficial	12
Superficial and deep	2
Deep alone	0
None	2
Without grey exudate at pupil margin	15
With	1
Secondary glaucoma	1

From this we may conclude that this type of iritis is disposed to have a fibrinous or gelatinous exudate, but may be purulent or serous; has keratitic precipitates which are brown or brown with grey and not grey alone, is likely to have synechiae which are more or less easily torn away; and does not tend to have secondary glaucoma.

In twelve of the cases of nonspecific or rheumatic iritis all infections that were found were removed. Of course we must concede that it is probably impossible to remove all foci of infection from an adult human being. The following table gives at a glance what infections there were; the removal of those set in italics resulted in definite cure or improvement so that the results of elimination of these foci are shown:

SUMMARY OF TWENTY-

	Patient	Age	Sex		Teeth	Tonsils	Sinus	G .U.	Abd.	Chest	Tub-n	Wass.	Sev.	Probable Etiology
1	Ayres	19	M	L		X							XX	Tonsils
2	Luenzman	58	M	L	X						X		X	T. B.
3	Yorde	49	M	R	X								X	?
4	Radowitz	57	M	L	X	?		Pros					XX	Teeth
5	Gedemia	44	F	R			X			Active	X		X	T. B. ?
6	Worzalla	16	M	L		X					X		X	T. B.
7	Jones	24	M	L	X	X							X	Teeth-Tonsils
8	Eggert	50	M	R	X	X		Pros.					X	Teeth-Tonsils
9	Gebelein	30	M	R	X		?						X	Teeth
10	Fox	53	M	R	X	X	X	X Scar	Constip.			XXXX	XX	Lues
11	Tritz	30	M	R	X	X							XXX	?
12	Reed	24	M	R & L	X	X		X G. C.				(3) Neg.	XXX	G. C. Teeth Tonsils
13	Knutson	48	F	R & L		X	X		Gall Blad.	Healed	X		X	T. B.
14	Kowalsky	26	M	L				Pros.					XX	G. C. ?
15	Shields	75	M	R	X			Pros.	Constip.			XX	XX	Lues
16	Salvin	30	M	R & L				Pros.			X		XXXX	T. B.
17	Gust	24	F	L		?							X	?
18	Chesak	56	F	R							X		X	T. B.
19	Schlafka	40	F	R & L		X		Cervix	Gall Blad. ?				XXX	? Tonsils ? Cervix
20	Vaughan	21	M	R	X	X							XX	Teeth
21	Brown	40	M	L	X								X	? Teeth
22	Pliska	25	M	R			X						XX	? Sinus
23	Thurn	29	M	R	X		X	Pros.			X		XX	T. B.
24	Meinholt	60	F	R		X		Sugar					XX	? Diabetes
25	Laube	34	M	L		X				Healed	X		X	T. B.

NONSPECIFIC IRITIS
(Rheumatic)

Case 1 *Tonsils*
Case 3 Tonsils
Case 4 *Teeth*, tonsils, prostate
Case 5 T.B.—not treated
Case 7 Teeth, tonsils
Case 8 *Teeth*, tonsils
Case 9 *Teeth*
Case 11 Teeth, tonsils
Case 12 Teeth, *tonsils, G.C.*
Case 14 G.C., prostate
Case 17 Tonsils
Case 19 Tonsils, cervix
Case 20 *Teeth*, tonsils
Case 21 Teeth
Case 22 Sinuses
Case 24 Tonsils, diabetes

By the removal of foci these results were obtained:

Cured	4
Improved	3
Not improved	4
Made worse	1
Not treated	4

FIVE CASES OF IRITIS

	Exud.	K. P.	Synechiae	Nodules	Tens.	Response to			Course	Recurrences		Visual Result
						Focal	For. Pr.	Tub-n		Bef.	Aft.	
1	Fibrin	Brown	Sup. Br.	0	0	X Tonsils	XX		Acute 3 Days	0	0	Normal
2	Plastic	Grey	Deep Gr.	X Koeppe	0	0		X	Sub.—A 3 Weeks	0	0	O. K.
3	Fibrin	0	Sup. B	0	0	0	X		Acute 9 Days	0	0	O. K.
4	Fibrin	Brown	Sup. B	0	0	0 Prostate X Teeth	Slight		Sub.—A 14 Days	0	0	O. K.
5	Fibrin	Brown	Sup. B	0	0		X		Sub.—A 3 Months	0	0	Total Loss
6	Plastic	Grey	Deep G	X Koeppe	X	0	0	Slight	Chronic 18 Months	X	X	Total Loss
7	Fibrin	Brown	Sup. B	0	0				Acute 9 Days	0	0	O. K.
8	Fibrin	0	S & D—B-G	0	0	X			Acute 8 Days	0	0	O. K.
9	Fibrin	Brown	Sup. B	0	0	Slight	X		Acute 2 Months	0	0	O. K.
10	Fibrin	Brown	Deep B	X	0				Acute 20 Days	0	0	O. K.
11	Purulent	Pus	0	0	0	0	X		Acute 21 Days	0	0	O. K.
12	Fibrin	Brown	Sup. B	0	X	Slight	X		Acute 5—20 Days	0	X	Slight Loss
13	Plastic	Grey	S & D—G	X K—Iris	X	0	Slight	X	Chronic 9 Years	X	XX	Mod. Loss
14	Fibrin	Gr. Br.	Sup. B	0	0	Slight	X		Acute 17 Days	0	0	Slight Loss
15	Serous	Brown	0	0	0	0	0		Acute 12 Days	0	0	Slight Loss
16	Plas. Fib.	Gr. Br.	S & D—G	X Iris - K	X	0	Fair	X	Acute—Chr. 3-6 Weeks	XX	XX	Mark. Loss
17	Fibrin	Grey	Sup. B	0	0	0	X		Acute 2 Months	0	0	O. K.
18	Plastic	Grey	Deep G	0	0	0	0	X	Acute 6 Weeks	0	0	O. K.
19	Fibrin	Gr. Br.	Sup. B	0	0	0	X		Acute 6 Days	0	0	O. K.
20	Purulent	Pus	Sup.	0	0	X			Acute 3 Days	0	0	O. K.
21	Serous	Gr. Br.	0	0	0	Worse	X		Acute 11 Days	0	0	O. K.
22	Fibrin	Br. Gr.	Sup. B - G	0	0		X		Acute 5 Days	0	0	O. K.
23	Fib. Plas.	Grey	S & D—B	X Koeppe	X	0	Fair	X	Sub.—A 2-6 Weeks	X	X	Mod. Loss
24	Fibrin	Brown	Sup. B	0	0		X		Acute 29 Days	0	0	O. K.
25	Plastic	Grey	Deep G	0	0	0		X	Sub.—A 3 Months	0	0	O. K.

Twelve of these cases were given foreign protein with the following results:

Cured, without the removal of foci	2
after removal made worse	1
after removal failed	4
after removal resulted in incomplete cure	3
	10
Improved, without removal of foci	1
followed by cure with removal of foci	1
	2
Not treated	4

Where foci of infections were removed 54.5 per cent were cured or improved, and where foreign protein was used 83.3 per cent were cured and 16.6 per cent were improved. Comparison of the two tables gives the score:

	Focal Infection	*Foreign Protein*
Cured	4	10
Improved	3	2
Not improved	4	0
Made worse	1	0

The following changes were found in the eyes of the tuberculous cases:

Exudate	
Plastic or fibrous	6
Fibrinous followed by plastic	1
Keratitic precipitates	
Grey or lardaceous	
Alone	5
With brown	2
Nodules	
Koeppe	3
Koeppe and iris	2
None	2
Synechia	
Deep with grey exudate	7
Secondary glaucoma	4

According to this, tuberculous iritis has grey or grey and brown keratitic precipitates; has dense, firm synechiae at the pupil borders of which there is a tendency to grey exudation; may have nodules; and is prone to have increased tension sometime in its course. This checks very closely with the description given by Finoff.[13]

This table shows the relationship of grey precipitates to tuberculosis:

Grey alone	5
tuberculous	5
nontuberculous	0
Grey with brown	7
tuberculous	2
nontuberculous	5

From this we may conclude that the presence of brown precipitates reduces the probability of tuberculosis. With grey exudate in the pupil there were eight cases of which seven were tuberculous and one nontuberculous.

The results of treatment of the tuberculous cases are seen in this table:

Had other infections	6
Had no other infections	1
Improved by removal of foci	0 (?)
Improved by foreign protein	3
Not improved by foreign protein	2
Apparently cured with tuberculin without recurrence	3
Improved with tuberculin but recurrent and requiring continuous observation	4

In these cases all foci were removed.

There were two luetic cases which had these changes:

Exudate	
fibrinous	1
serous	1
Synechiae	
deep with nodule	1
none	1
Keratitic precipitates	
brown	1
none	1

One of these being a serous iritis had no characteristic findings, but the other had the intense injection, enlarged episcleral vessels, numerous brown keratitic precipitates and brick-red gummatous nodule that typified luetic iritis.

Three cases are of special interest. Case 12 was probably sensitized to gonorrhea; he had four attacks of iritis in three and one half years and in each attack he received a thorough study. When foci were found they were removed with prompt cure; when none was found he was given foreign protein with equally good results. Case 20 had a very acute hypopyon iritis with vision reduced to hand movements. Twenty-four hours after drainage of a root abscess the hypopyon was gone and three days later his vision was normal. He has had no recurrences in five years and still retains the tooth. Case 11 had no demonstrable infections and was improved, but not cured by foreign protein. It cleared up in a few days following drainage of the anterior

chamber. The behavior of these two cases of hypopyon iritis does not harmonize with that of bacterial infections.

In all we see that only five cases report recurrences after treatment, of these four are tuberculous. It is evident that these ordinary cases of iritis were not prone to recur whether their infections were removed or not. One cannot say, however, whether recurrences would have been more numerous if no foci had been removed.

In 1923 Brown and Irons[14] report no recurrences in forty-three of fifty cases which had had all infections removed; here also one cannot say how many would have recurred had their infections not been removed. From our series it is apparent that recurrent or chronic iritis is likely to be tuberculous.

Conclusions

Even though this is a small number of cases we believe that certain conclusions may be drawn from them. Because of the difference in treatment it is important to determine whether a case of iritis is tuberculous, luetic or nonspecific. This can be done with some accuracy by the examination of the eye and can be confirmed by special tests, etc. We are not certain whether nonspecific foreign protein acts by mobilizing the forces of immunity or by a general desensitization process; although the latter is considered most probable. In this case the beneficial effects obtained by this method of treatment indicate that the eye changes are allergic in nature. In view of this doubt, as well as the uncertainty regarding the presence of organisms in the eye in nonspecific iritis, this question must remain undecided; however, it appears that the sensitization or allergy conception is the more probable. In some tuberculous iritis this may also be true. The finding of tubercle bacilli in the human iris by Meller[15, 16] indicates that a tuberculosis of the iris actually exists. The definite response of some cases of tuberculin, however, is contrary to the known behavior of tuberculous infections. This leads to the belief that there may be two types of uveal tuberculosis. Verhoeff[17] has reported a case of acute tuberculous iritis in which no organisms were found and states that in others he has found the tubercle bacilli. The first may be illustrated by our cases 2, 16, 18, 23, and 25 and the second by cases 6 and 13; the former were characterized by acute, sometimes violent, attacks and responded to tuberculin; the latter were of a lower grade but very pernicious in spite of tuberculin.

The study of our series of cases indicates that there is a relationship between foci of infection and iritis. In most cases this is probably not by bacterial metastasis. The removal of foci in the treatment of iritis does not have the primary importance that it has been given.

BIBLIOGRAPHY

1. Irons, E. E., and Brown, E. V. L.: The Etiology of Iritis. J.A.M.A., **66**:1840 (June 10) 1916.
2. Irons, E. E., and Brown, E. V. L.: The Etiology of Iritis. J.A.M.A. **81**:1770-1776 (Nov. 24) 1923.
3. Rosenow, E. C., and Nickel, A. C.: Elective Localization in Determining the Etiology of Chronic Uveitis. Am. J. Ophth., **15**:1-10 (Jan.) 1932.
4. Irons, E. E.; Brown, E. V. L.; and Nadler, W. H.: Localization of Streptococci in the Eye. J. Infect. Dis., **18**:315 (March) 1916.
5. Brown, A. L.: Chronic Uveitis, Bacteriologic and Immunologic Considerations. Arch. Ophth., **12**: 730-780 (Nov.) 1934.
6. Berens, Conrad; Nilson, Edith L.; and Chapman, G. H.: Iritis Produced in Rabbits' Eyes by Intravenous Injections of Crude and Purified Cultures of Bacteria Isolated from Patients with Certain Inflammatory Eye Diseases. Read before the Association for Research in Ophthalmology, May, 1936.
7. Traut, E. F.: Blood Culture Studies in Iritis. Am. J. Ophth., **17**:106-109 (Feb.) 1934.
8. Irons, E. E.: The Etiology of Chronic Iritis. Am. J. Ophth., **14**:1228-1236 (Dec.) 1931.
9. Kolmer, J. A.: The Bacteriological and Neurological Aspects of Iritis. Am. J. Ophth., **14**:217-222 (March) 1931.
10. Brown, A. L.: Considerations Underlying the Experimental Production of Uveitis. Am. J. Ophth., **15**:19-23 (Jan.) 1932.
11. Brown, A. L.: Considerations Underlying the Experimental Production of Uveitis. Arch. Ophth., **9**:13-24 (Jan.) 1933.
12. Friedenwald, J. S.: Allergy and Immunity in Ocular Tuberculosis. Arch. Ophth., **9**:165-178 (Feb.) 1933.
13. Finoff, W. C.: Syndrome of Tuberculosis Uveitis. Arch. Ophth., **9**:13-24 (Jan.) 1933.
14. Irons, E. E., and Brown, E. V. L.: Recurrence of Iritis as Influenced by the Removal of Infections. J.A.M.A., **87**:1167-1172 (Oct. 9) 1926.
15. Meller, Joseph: Tuberculosis and its Relation to Spontaneous, Posttraumatic and Sympathetic Ophthalmia. Tr. Ophth. Soc. U. Kingdom., **54**: 467-496, 1934.
16. Meller, Joseph: Zur Frage der Tuberkulosen Aetiologie der Chronischen Uveitis und Anderer Entzundlicher Erkrankengen des Auges. Wien. klin. Wchnschr., **45**:33-37 (Jan. 8) 1932.

17. Verhoeff, F. H.: Acute Tuberculous Iritis: Microscopic Examination of Eye Showing This Condition. J.A.M.A., 95:583-585 (August 23) 1930.

DISCUSSION

Dr. R. O. Ebert (Oshkosh): I admire the courage of Dr. Copps in presenting a paper on such an involved and controversial subject as the etiology of acute iritis. We must certainly all admit that he has made excellent observations. He has evolved a well thought-out classification of the ophthalmic pictures as related to the etiology of iritis. The descriptions are especially of value in that so few investigators mention them. Both Verhoeff and Finoff mention distinctive gross findings in luetic, tuberculous, and gonorrheal iritis, but fail to give minute differential descriptions. Dr. Copps' results are interesting in that they show the value of foreign protein as a nonspecific desensitizing agent.

The etiology in Dr. Copps' series, considering the comparatively small number of cases, compares surprisingly well with an average of 1,234 combined cases taken from the reports of Arlt, Butler, Gilbert, Bulson, Elschnig, Brown and Irons, Newton, and Sanford Gifford. The averages of etiology in this group in the order of their frequency are: due to syphilis 19.8 per cent, tuberculosis 17.2 per cent, gonorrhea 2.8 per cent, rheumatism 5.8 per cent, tonsils 9.3 per cent, teeth 11.1 per cent, sinuses 2.3 per cent, intestinal toxemia 5.2 per cent, diabetes 0.3 per cent, other causes 3.5 per cent, undetermined 22.7 per cent.

European clinics report a much larger per cent of cases as being tuberculous, and only a few continental observers report foci of infection as a cause. Such cases are usually reported as rheumatic. Fuchs and Elschnig were among the first European ophthalmologists to consider focal infection as a cause of acute iritis. Elschnig in his second series of cases dropped the percentage of rheumatic cases from 15.5 per cent to 9 per cent, with a corresponding percentage increase in the cases listed as due to dental sepsis.

In America there undoubtedly has been to the contrary an over-emphasis upon foci of infection, and many cases of tuberculous iritis have been overlooked. The extensive and thorough work of Brown and Irons, mentioned by Dr. Copps, proved that foci of infection cause iritis; however, Irons felt that when iritis tends to become chronic tuberculosis must be suspected, and that allergy is a factor in many cases.

Groenouw estimated that 3.2 per cent of all syphilitics get ocular involvement. About half of these would be involvement of the iris. Joseph Moore of Baltimore giving statistical information based upon a study of 249 cases of syphilitic iritis, stated that he believed recurrent attacks of syphilitic iritis are due to a recrudescence of the syphilitic infection; that in such cases no localized tissue immunity has been built up, often because early syphilitic treatment prevented the patient from producing his own tissue immunity.

Gonorrhea causes about 4 per cent of the iritis cases in the series of most reporters. Gonorrheal iritis interestingly appears usually only after joint involvement, and complicating a posterior urethritis. The disease is seldom present in the female. Gonorrheal uveitis, according to Verhoeff, comes on very acutely, with much pain and a pathognomonic fibrinous pupillary exudate.

Thomasson, of the Knapp Clinic, reported five cases of iritis secondary to a nonspecific prostatitis. Such cases are, according to Brown and Irons, secondary to a primary Neisserian prostatic infection.

Many investigators have reported comparatively large series of cases of iritis due to dental sepsis. The association of dental infection with Streptococcus viridans and uveitis has been brought out especially by de Schweinitz.

The work of Rosenow and Benedict, in producing acute iritis in rabbits by the intravenous injection of a streptococcic culture from a dental infection in a human with acute iritis, has supposedly proved an elective localization of streptococci in the body.

No very definite proof has been offered, and very few cases have been reported to indicate that bacteria or products of bacterial disintegration from the intestinal tract cause iritis. Evidence that infection exists in the intestinal tract is hard to obtain.

I do not feel that this discussion would be complete without mention of iritis as a manifestation of humoral or tissue hypersensitivity in a specialized tissue. Unfortunately, the mechanism of allergy, because of its many phases, is still incompletely understood, thus bringing many additional variables into any investigation dealing with allergy. Several experiments have been of distinct value: Allan Woods proved experimentally that the cornea, although avascular, is able to form antibodies. This observation is further corroborated by the increased concentration of antibodies in the aqueous after corneal puncture, and may explain some of the benefits derived from paracentesis of the anterior chamber, and by the Saemisch section in corneal ulcer.

A. L. Brown did an interesting piece of work. He sensitized the eyes of rabbits by the injection of a culture of Streptococcus haemolyticus into the anterior chamber. Ten days later an injection of the specific antigen into an ear vein caused an iridocyclitis, showing that uveitis may be a localized allergic response.

Allan Woods came to the conclusion that there is no conclusive proof that an allergic mechanism is responsible for iritis secondary to a focal infection, but is suggested by experimental work in hypersensitivity to bacteria and their products.

To the mentioned mechanisms producing iritis, Kolmer adds another, that of the gradual accumulation of toxins in the uveal tract from an infection in the body. He calls this a "specific tissue affinity," a factor not acquired, nor related to allergy.

With such diversity of opinion and diverse possibilities one might easily draw the conclusion that no one factor alone is the causative factor in most cases of acute iritis, and in a given case several factors operating at one and the same time may be responsible.

I believe allergy is of major importance; however, other factors, such as direct infection, emboli of bacteria, the "elective localization" of Rosenow, or the "specific tissue affinity" of Kolmer perhaps have a part in the etiology of iritis.

The Use of Vaccines and Sera in the Diagnosis, Prevention and Treatment of Disease*

By J. E. GONCE, JR., M. D.
Madison

THERE are several lines of approach along which the subject matter of this paper could be discussed. One would be a discussion of the individual vaccines and sera, one after another, without regard to the fundamental principles involved. But that would be like not seeing the woods for the trees. Another would be that of considering the immunological principles underlying the use of these biological products in the diagnosis, prevention and treatment of the various communicable diseases. This, no doubt, would be the ideal method of approach, but would involve the exposition of so much theoretical matter that it would soon become so involved as to lead to confusion. Perhaps the simplest method, and the one which will be followed, is a consideration of vaccines and sera as entities, regarding each in turn, as completely as laboratory and clinical facts will permit, from the standpoint of diagnosis, prevention and treatment of infectious diseases.

Vaccines

Diagnosis. About the term "vaccine" there has been a certain amount of misconception in the past. Being derived from the Latin word vaccinus meaning a cow, it very probably originated in Jenner's time and had reference to what is now known as a living virus. After the introduction of typhoid vaccine in 1897 by Wright, the term "vaccine" came to mean any killed bacterial suspension. In recent years with the thought that a vaccine is an antigen, a material which upon introduction into the tissues causes a reaction with the production of immune substances for the agent introduced, the term "vaccine" has been broadened to include not only preparations of living viruses and killed bacterial suspensions but bacterial filtrates and toxins as well.

Vaccines then include a number of different biological products, and consequently their use as diagnostic agents depends upon different fundamental principles. These principles are mainly two: (1) the demonstration of infection, of which a part or subdivision is the demonstration of sensitization or allergy; and (2) the demonstration of immunity. The practical application of the first principle is found in the intradermal tests with tuberculin, pertussis vaccine, Brucella vaccines, tularemia vaccine and antitoxin, autogenous vaccines of various other bacteria, pollens, etc.

In doing routine tuberculin tests 0.1 mgm. of Koch's old tuberculin is injected *intradermally* and the test read two or three days later. The presence or absence of edema and erythema makes the reading clear-cut. When the reaction of 0.1 mgm. is uncertain, 1.0 mgm. of tuberculin should be used for the test. The test, of course, does not indicate the presence or absence of activity of the disease.

Similarly the intradermal injection of 0.1 cc. of whooping cough vaccine (Sauer), during the course of the disease and for some time afterwards, gives rise in 24 hours to a local erythema and sometimes edema. This reaction, however, is not so definite as that of the tuberculin skin test.

For the intradermal tests demonstrating Brucella infection two types of vaccines have

* Presented before Ninth Councilor District Medical Society at Wausau, November 19, 1936.

been used, one being a toxic filtrate[1] and the other a suspension[2] of heat-killed organisms. These tests are similar to the tuberculin test in that they do not distinguish between sensitization as the result of previous infection and infection at the time the test is made. The superiority of one or the other of these antigens has not yet been demonstrated but the filtrate has been more widely employed than the suspension type of vaccine. The filtrate is made from the three species of Brucella and the test is applied by injecting 0.1 cc. intradermally. In the positive reactors an area of erythema and edema one to two inches in diameter appears in four to forty-eight hours and persists for forty-eight to ninety-six hours. In individuals hypersensitive to Brucella infection severe local and systemic reactions may occur with either type of vaccine.

To demonstrate tularemia two different skin tests have been described by Foshay.[3, 4] In one a chemically treated suspension of organisms is injected intradermally at any time after the eighth day of the disease, by which time skin sensitivity appears, and the reading is made after forty-eight hours. The appearance of the local reaction in positive reactors is quite similar to that of a positive tuberculin reaction. Skin sensitivity to this test also remains positive for years after activity of the infections has subsided. In the other test a diluted antitoxin is used. In positive reactors there is a local reaction in the tissues between the antigen with which the patient is infected and the antitoxin giving rise to what Foshay[4] calls an "erythematous-edematous" reaction which must be differentiated from a reaction of sensitization to horse serum. The E-E reaction which consists of a spreading erythema and slightly elevated central edema without urticaria, pseudopodia or itching, appears within two to four minutes and reaches its height in twenty to thirty minutes, after which it rapidly fades.

In doing skin tests for bacterial allergy the readings should be made in twenty minutes and again in twenty-four hours at which latter time a well-marked erythema without edema is found in the positive reactors.

The practical application of the second principle, that is, the demonstration of immunity, is found in the Schick and Dick tests. These tests consist in the intradermal injection of diphtheria toxin or the scarlet fever streptococcus toxin which in the immune person is neutralized by the antitoxin present in the tissues and which in the case of the susceptible individual (without antitoxin) irritates the tissues causing a localized inflammation. The Schick test (for susceptibility to diphtheria) should be read on the second or third day after its application. Signs of the local reaction, however, may persist for many weeks. The Dick test (for susceptibility to scarlet fever) must be read eighteen to twenty-four hours after its application because after twenty-four hours have elapsed the signs of local reaction very quickly fade.

Vaccines as diagnostic agents then, in present day practice, have a rather limited field of application, but are of great value especially in the form of the tuberculin, Schick and Dick tests.

Prevention and Treatment. As stated above, a vaccine in its broad sense is an antigen. And "an antigen is a substance that, when introduced into the tissues, induces a reaction, in other words, varying degrees of injury, followed by recovery—a reparative process which becomes specific in its relation to the particular agent that incited the injury."[5] Certainly the diphtheria toxin produces a specific reaction in the form of antitoxin. So does the typhoid bacillus in the form of agglutinins. Consequently it is conceivable that any pathogenic microorganism when introduced into the tissues might result in the formation of specific antibodies, and thereby make it possible to immunize with vaccine against any and all infectious diseases. Unfortunately such is not the case. Indeed, both laboratory and clinical evidence indicates that the number of really useful vaccines are relatively few. However, in those instances where a vaccine is potent, and its specific relationship to an infectious process is established, such as in the case of typhoid vaccine, diphtheria toxin, smallpox vaccine, etc., vaccine therapy does induce an active immunity and usually a lasting one.

This response to vaccine therapy being relatively slow in its development the greatest value of vaccines is found in their use as prophylactic agents, agents used to produce an immunity before infection has taken place. In the presence of an already existing acute infection it would seem probable in the vast majority of cases that the tissue cells are being adequately stimulated and consequently nothing is to be gained by the injection of a homologous vaccine. Contrary to this idea is the accepted use of vaccines in the treatment of low grade infections, such as recurrent furunculosis, where the tissue cells are not being sufficiently stimulated to overcome the infection. And, again, in the treatment of various infections, vaccine, especially triple typhoid vaccine, is sometimes used as a nonspecific agent for the purpose of producing protein shock which supposedly concentrates the already existing immune bodies in the tissue fluids.

The vaccines in common use may be divided into those consisting of dead bacterial suspensions, bacterial filtrates, living viruses and toxins.

Bacterial suspensions and bacterial filtrates. Of all the vaccines consisting of dead bacterial suspensions typhoid vaccine is the oldest and most extensively used. Originally typhoid bacilli alone were used in the preparation of typhoid vaccine, but during the World War it was found advantageous to include paratyphoid bacilli, A & B. This preparation is known as triple typhoid vaccine, and consists of 1,000 million Bact. typhosum, 750 million Bact. paratyphosum A and 750 million Bact. paratyphosum B per cc., and a usual dose is 0.5 cc. subcutaneously followed at three to ten day intervals by two injections of 1 cc. each. This vaccine is specifically used as a prophylactic agent alone and never as a therapeutic one. In those uncommon instances where typhoid vaccine is given intravenously in the treatment of typhoid fever the favorable response, if any, is regarded as a nonspecific phenomenon and a result that can be duplicated with other bacterial vaccines or various foreign proteins like milk or peptone which give rise to a protein shock. Although some observers feel that improvements in sanitary conditions rather than vaccinations are responsible for the present-day control of typhoid fever, most authorities are convinced that antityphoid vaccination provides very definite protection against the disease. Perhaps the most significant observation made in favor of the superiority of vaccination over sanitary regulations in preventing typhoid fever is that of the reversal in sex incidence which has taken place in Germany, France and the United States since the World War. Ordinarily the incidence of typhoid fever between the ages of twenty and fifty is greater in males than in females, but since the World War there has been a very decided reversal in this usual sex incidence which is presumably due to the compulsory vaccination of service men during the war. This observation might also be taken to indicate a lasting immunity resulting from vaccination, but it is no doubt advisable to recommend repeated vaccinations for those individuals subject to frequent exposure to typhoid fever.

Following the work of Besredka in the period 1919–1923 numerous reports have been issued concerning the production of an effective immunity in man by the oral administration of typhoid vaccine in the form of capsules or pills in which bile is incorporated with the bacillary bodies to ensure the passage of the latter through the mucous membrane. Although the degree of immunity established by the oral method approaches that of the subcutaneous method as determined by laboratory methods, sufficient data from the field has not been accumulated as yet to warrant the abandonment of the ordinary subcutaneous route in favor of vaccination per os.

At the present time there is a tendency among public health authorities to discontinue the use of triple typhoid vaccine and to return to a vaccine made from typhoid organisms alone for immunization purposes. In view of the experience in England during the war when it was found necessary to carry out paratyphoid immunization in order to control the disease among troops, and in Germany of having large numbers of cases because of the failure to include paratyphoid immunization in their prophylactic program, there is some reason to doubt the wisdom of

this move. But regardless of the merits of paratyphoid immunization it is important for the clinician to realize that it is the paratyphoid organisms rather than the typhoid organisms in triple typhoid vaccine that are responsible for the severe constitutional reactions to the vaccine; and, consequently, in the selection of a typhoid vaccine to be given intravenously for the purpose of fever therapy in chorea, and other disorders where nonspecific shock treatment is commonly used, he must make certain that his preparation is a triple typhoid vaccine. Otherwise it will not be possible to produce hyperpyrexia with the vaccine in the amounts customarily employed.

Pneumococcus Vaccine. All experimental investigators are agreed that mice and rabbits can always be successfully immunized against most types of pneumococcic infection. This protection is absolutely type specific, type I, for example, not conferring an immunity against any of the other types. In the case of monkeys the results of attempted immunization are uncertain, it being possible to achieve protection against some types and not against others. In man no convincing reports of successful immunization against pneumonia have ever been made. The records of field trials on man in which large groups of vaccinated and unvaccinated men have been compared indicate that the increase in resistance attained by vaccination is slight at best. That man is not susceptible to immunization against pneumonia is not surprising in view of the multiplicity of the specific antigenic types and the lack of a common specific immunizing substance in this great group of organisms. Moreover it is a clinical experience that recovery from one type of pneumonia may be followed by a second attack of the same type, and some years ago it even used to be claimed that one attack of pneumonia predisposed to another. Consequently, if the disease itself does not confer enough immunity to resist a second attack it is hardly reasonable that a vaccine would do so.

"Cold Vaccines." Of all the bacterial vaccines in common use perhaps the "cold vaccine" is the one which has the least to offer in the way of convincing support for its asserted virtues. The "cold," "catarrhal" or "respiratory" vaccine consists of a conglomeration of heat-killed organisms, the only basis for the selection of the various number being the isolation of them from the upper respiratory passages of individuals having "colds." The organisms usually included in these vaccines are pneumococci, streptococci, staphylococci, influenza bacilli, Micrococcus catarrhalis and Friedländer's bacilli. In recent years these vaccines have become quite popular in the form of bacterial filtrates for subcutaneous injection and dried preparations of the organisms for oral administration. However, there is not the least amount of conclusive evidence to prove that these organisms are incitants of the common cold or that the vaccines made from them are antigenically potent. In isloated instances vaccine therapy does seem to protect against "colds" but in those investigations where large numbers of vaccinated individuals have been compared with unvaccinated ones, such as has been done by at least three different groups of observers, [6, 7, 8] prophylactic vaccine therapy has been found to be absolutely ineffective in reducing the incidence of the common cold. As a matter of fact, recent studies by Dochez[9] et al (1929–1936), and Long et al (1931) have greatly strengthened the earlier view of Kruse (1914) and of Foster (1917) that the common cold is caused by a filterable virus. If this be the true situation in regard to the etiological agent of the acute cold the incidence of "colds" cannot possibly be decreased by the prophylactic use of bacterial vaccines. Not to be outdone by the evidence favoring a virus as the etiological agent of the common cold the supporters of the vaccine contend that, even though a virus may be responsible for the onset of the disease and prophylactic vaccine therapy may have no influence on the incidence of the common cold, it (vaccine) does materially lessen the frequency and severity of complications in upper respiratory tract infections due to secondary bacterial invaders. That there may be something to this aspect of the situation is indicated by two recent reports, one by Kneeland[10, 11] and the other by Wallfield,[12] both of whom found that while vaccine does not reduce the incidence of the common

cold it does modify the severity of the disease. Kneeland[11] states "The use of mixed vaccines is not to be recommended except for those individuals who are extremely susceptible to the common cold and its complications. Then, when used, these vaccines should be given in adequate amounts, and injections kept up at weekly intervals throughout a good part of the winter."

Influenza Vaccine. In general it may be said that the situation in regard to influenza vaccine very closely parallels that for "cold vaccine" in practically all respects. During the past three years work by three different groups of investigators[13, 14, 15] has shown the infective agent recovered from persons with influenza to be a filterable virus.

Pertussis Vaccine. The exact status of pertussis vaccine as a prophylactic and therapeutic agent is still an experimental problem. Those who favor its use claim that the difference between success and failure of pertussis vaccine as an immunizing agent hinges on the method of cultivation of H. pertussis and the age of the culture. When freshly isolated from a case of whooping cough and grown on a special medium containing blood, all strains of H. pertussis are antigenically potent and apparently belong to a single serological type, as determined by agglutination and absorption tests, and are lethal to mice. Such organisms grow very poorly and belong to phases I and II of Leslie and Gardner[16] or S strains of Shibley and Hoelscher[17] and Toomey et al.[18] These same organisms transplanted onto media not containing blood and cultivated over a period of some weeks undergo a great change in their morphological and biological characteristics. The original poorly growing smooth type of colony is replaced by an abundant growth of rough colonies, the organism loses its virulence and either loses entirely or suffers a great alteration in its antigenic potency. In this stage the organism belongs to phases III and IV of Leslie and Gardner or to the R strain of Hoelscher and Toomey. Because of the abundancy of the growth of the organism it was customary until the time of the reports of Sauer[19] and Madsen[20] in 1933, for commercial and state hygienic laboratories to prepare vaccines from heat-killed organisms belonging to this latter strain. Such a vaccine made from old cultures unquestionably is extremely limited in its potency and of very doubtful value in either the prevention or treatment of whooping cough. Despite the laboratory evidence and the clinical reports against the usefulness of this type of vaccine many physicians still regard it as being of value in the treatment of whooping cough and in the production of temporary immunity for exposed children. Following the reports of Sauer[19] and Madsen[20] in 1933 concerning their results in the protection against whooping cough conferred by vaccines made from H. pertussis grown as described above and killed by the addition of chemicals (phenol in the case of Sauer's vaccine and formaldehyde in Madsen's) and administered in relatively large quantities, there arose a great interest in the possibilities for permanent immunization of children against whooping cough. Consequently this new type of vaccine was made available for general distribution by the commercial laboratories and since then has become very extensively employed for that purpose. A goodly number of reports indicating the effectiveness of Sauer's vaccine as a prophylactic agent have appeared in the literature, and Sauer[21] in a communication subsequent to 1933 has reported protection against whooping cough in 92 per cent of children immunized and later exposed to the disease. Other observers have also reported a high percentage of protection. However, opinion about Sauer's vaccine is not unanimous, and experiences gained with it are not all as glowing as Sauer's. For example, Doull, Shibley and McClelland[22] in November, 1936, reported a twenty-six months' study in Cleveland in which sixty-one out of 483 vaccinated children acquired whooping cough as compared to seventy-one out of 496 unvaccinated controls, an incidence almost the same in the two groups. It was the impression of the physicians who observed the representative cases of both series that attacks among the inoculated tended to be milder but a detailed study of the relative severity has not been completed as yet. Evidently the final decision concerning the value of Sauer's vaccine as a prophylactic agent against whooping cough must be held in

abeyance at the present time. The one point on which most observers seem to agree is that the course of the disease in the vaccinated child is apt to be, but not necessarily, milder than in the unvaccinated.

Kreuger's pertussis undenatured bacterial antigen, commonly known as U.B.A., is a bacterial filtrate obtained after fragmentation of living organisms and is said to contain the native antigens of the living bacterial cell in an unaltered and undenatured form. It has been used for permanent immunization, for prophylaxis after exposure and therapeutically after coughing has begun, and for the latter two purposes has met with wide favor. Frawley[23] reported that pertussis U.B.A. given in the incubation period to ninety-eight cases was followed by whooping cough in 50 per cent of the cases and that in them the cough was mild or atypical. Munns and Aldrich[24] found this vaccine to have a very uncertain effect in preventing whooping cough but that it had, when given in the incubation period, or within several days after the appearance of the cough, definite effect of modifying and shortening the course of the disease in most of their cases. Here again must it be said that the final verdict concerning the usefulness of U.B.A. cannot be pronounced.

Vaccine therapy has been quite extensively employed in the treatment of undulant fever in its chronic form. In the acute stages of the disease no benefit could reasonably be expected from the administration of vaccine but some observers feel that in the chronic form of the disease with irregular or slight fever the extra stimulus provided by vaccine might possibly hasten recovery. For this purpose two types of vaccine have been used: (1) a suspension of heat-killed organisms made from strains of either or both of Br. abortus and Br. melitensis, and (2) a toxic filtrate prepared from broth cultures of Br. abortus and Br. melitensis. Many reports about the results obtained by the use of these vaccines have been issued but as yet no conclusive proof has been presented to show that they alter, to a significant degree, the natural course of the disease, which in the average case persists for three months. The Brucella vaccines are just another example of the general rule that vaccines, as specific agents, are useless in the treatment of active disease. For an excellent review of the general subject of the treatment of human brucellosis see Carpenter, C. M., and Boak, R. A.: Medicine, 15: 103, (Feb.) 1936.

These are only a few of the bacterial vaccines in current use. There are many others. In general, the exact status of bacterial vaccines as immunizing agents cannot be accurately catalogued because in many instances reports on their usefulness are contradictory; because a specific etiological relationship to the disease does not necessarily exist; and because laboratory research does not confirm clinical experience. That laboratory research does not confirm clinical experience perhaps must not be taken too seriously because triple typhoid vaccine given intravenously so as to cause a fever of 105 and to act as a nonspecific therapeutic agent unquestionably is of benefit to certain chronic diseases of the eye, the skin, the joints, the vascular system and the central nervous system, and there is no laboratory or other explanation to account for the improvement in these conditions that follows its use. However, there is this much to be said of these bacterial vaccines, that both clinical and laboratory experience shows that in those instances where a uniform result is obtained, as in antityphoid vaccination, it is by the use of the vaccine as a preventive agent and not as a therapeutic one. In this connection one might compare these vaccines to the hay fever situation. The etiology of this allergic condition can be determined and a vaccine prepared from the toxic material which is most effective as a perventive measure.

Viruses. As to the vaccines consisting of a living virus their use is also limited to prevention. The positions of smallpox vaccine, rabies vaccine and distemper vaccine for dogs are all firmly established. Attempts by Kolmer and Brody to develop a living but modified virus vaccine therapy to prevent poliomyelitis have been unsuccessful.

Toxins. "Preparations of the toxins of the diphtheria and tetanus bacilli, and of the hemolytic streptococci are all potent vaccines and their etiological relationship to the disease process is clearly established, but even

these preparations are of limited practical value. No one presumes to advocate their use in the acute infectious process. Here we have general acceptance of the sharply practical limitations of this type of vaccine therapy and it very strikingly illustrates the points of view regarding other forms of vaccine. When these preparations are so toxic that it is difficult to use them unless modified, treatment with formaldehyde destroys their toxicity without injuring materially their antigenic activity. These toxins can therefore be converted into toxoids and used effectively."[5]

Comparatively little has been done with tetanus toxoid so far, but it, no doubt, will come to have a very practical, although limited, sphere of usefulness. Its use probably is not indicated in the general population, but it has distinct promise of usefulness in selected groups of individuals exposed to more than the usual risk of tetanus, such as steel mill workers, miners, military campaigners, and agriculturists. It is prepared as an alum precipitated toxoid and is an active immunizing agent with the production of antitoxin. Following a single injection of 1 cc. of toxoid the antitoxin titre slowly rises over a three to five month period, maintains itself for twelve to eighteen months, and then slowly begins to fall. A second injection of toxoid given three months after the first, as is now recommended by Bergey,[25] induces a rapid formation of greatly increased amounts of antitoxin. Although this high titre of antitoxin gradually falls off, a third injection at any time up to two years after the second, again quickly raises the immunity to a higher level. It is consequently thought that those who have been immunized within the previous two years could upon injury be protected with another injection of toxoid and thereby avoid the use of commercial antitoxin. Inasmuch as there is considerable individual variation in duration of immunity provoked by tetanus toxoid, it must be emphasized that the original vaccination cannot be relied upon for complete protection and that in case of injury a third injection of toxoid is necessary. to provide protection. Whether or not this same response will occur beyond two years after the original immunization, or last complemental injection, of toxoid is not known.

Diphtheria toxin, modified so as to render it wholly or relatively nontoxic and yet so as to retain its antigenic potency, is, without doubt, the ideal immunizing agent from both the laboratory and clinical point of view. It is a potent preparation, one which has a specific relationship to the disease, one which induces the formation of an antibody (antitoxin) in measurable amounts and one which confers lasting protection against the disease. Originally, diphtheria toxin was modified by antitoxin by Von Behring (1913) and the preparation known as "toxin-antitoxin": then it was modified by treatment with formulin by Ramon (1924) and the preparation known as "anatoxine" or "toxoid." Finally since the experimental work of Glenny (1930) the formalin product has been adsorbed on alum and the preparation known as "alum precipitated toxoid." The two toxoid preparations have been found to be far more effective than toxin-antitoxin in immunizing children and consequently, in the past few years, have supplanted it to a considerable extent. Although the administration of two doses of plain toxoid in amounts of 1 cc. each at two or three weeks' interval is an accepted method of treatment, a higher percentage of immunity can be obtained by three injections. By giving the third dose all except the extremely resistant cases will become Schick negative. It has been recently shown by Cooke[26] that a second dose of alum precipitated toxoid given four to five months after the first also results in a higher percentage of immunity than the usual one injection. Cooke found three doses of plain toxoid at several weeks' intervals and two doses of alum precipitated toxoid at four to five months' intervals to provide 100 per cent immunity. The chief objectionable feature to the toxoid preparations is that in full doses they cause moderately severe local and sometimes even constitutional reactions in a few children over six to eight years of age. Recovery from such reactions, however, is rapid and complete. In order to avoid these unpleasant reactions in older children and adults 0.1—0.2 cc. of plain toxoid may be given at the first injection and the amount

increased slowly or rapidly according to the presence or absence of local reaction until a total of 2 to 3 cc. have been given. With the newer preparations of alum precipitated toxoid the danger of sterile abscess formation is minimal. The ideal age at which to immunize children against diphtheria is six months for children living in the country and ten months for children living in the city.

As to the immunization against scarlet fever the effectiveness of scarlet fever toxin or Dick toxin seems to be pretty well established. Given at weekly intervals in the dosages of 500, 2,000, 8,000, 24,000, and 80,000 skin test doses it unquestionably renders a high percentage of positive Dick reactors negative and protects vaccinated individuals against the disease for an unknown length of time. Experience gained by numerous observers in the prevention of scarlet fever in interns and nurses working in contagious hospitals leaves no uncertainty as to the effectiveness of scarlet fever toxin. However, there has been a great deal of debate concerning the justification of regarding this institutional experience as an indication of the advisability of routinely immunizing all susceptible children. The arguments advanced by those opposed to immunization against scarlet fever by the Dick method are concerned with the following points: multiplicity of strains of hemolytic streptococci, low individual susceptibility to scarlet fever, mildness of scarlet fever in the majority of instances, questionable duration of immunity following vaccination, the possibility of protection against rash without protection against the invasive properties of the streptococcus, and the frequency and severity of constitutional reactions to the injections. The last named objection lies the heaviest on the minds of physicians and parents alike, and many physicians after presenting the facts to parents are guided in their procedure by the decision of the parents. In order to prevent reactions, other methods of administering the toxin, such as by inunction and intranasal introduction, have been tried but have been unsuccessful in bringing about a negative Dick test. Within the past year Rappaport[27] has reported a considerable reduction in reactions in young adults and at the same time the production of satisfactory immunization by a more gradual increase in dosage than by the Dick method. His weekly dosage was as follows: 150, 300, 600, 1,200, 2,500, 5,000, 10,000, 20,000, 40,000 and 80,000 skin test doses. Even by this method reactions have occurred in 17.5 per cent of the cases vaccinated during the three year period of study. In general it may be said that the ideal method of immunizing against scarlet fever has not yet been discovered and that the chief hope of the future is for a modified scarlet fever toxin or toxoid, comparable in its advantage to modified diphtheria toxin.

The final vaccine for consideration is staphylococcus toxoid. All investigators are agreed that staphylococcus toxin is antigenic and in the raw form extremely toxic. In its effect it is hemolytic, dermonecrotic (greatly diluted and injected into the skin it causes erythema with central necrosis), destructive for white blood cells, and extremely lethal (rabbits die within one to three minutes following the intravenous injection of an appropriate dose). However, it can be detoxified by formalin easily and the toxoid is an effective immunizing agent insofar as production of antitoxin is concerned. Its usefulness seems to be limited to the chronic pyodermias such as recurrent furunculosis, pustular acne, recurrent sties, and blepharitis. But clinically it seems to have no advantage over staphylococcus vaccine made from bacterial suspension, and like the latter does not help all patients treated. It is given subcutaneously every five to seven days beginning with a small dose such as 0.05 or 0.1 cc. which dose is gradually increased. Staphylococcus toxoid has also been used in osteomyelitis but not with success. It is definitely contraindicated in acute and fulminating staphylococcic infections.

Sera

Whereas the term vaccine is used to indicate a variety of biological products such as killed bacterial suspensions, living virus, bacterial filtrates, or bacterial toxins, the term serum is used to indicate a single biological product, namely animal serum. A horse or other animal is given repeated injections of

vaccine to develop an active state of hyperimmunity against the particular antigen used. The horse is then bled and the serum or concentrated preparations of the globulins are used for the treatment of the homologous type of infection. Serum therapy is thus the transfer of the products of an active immunization to the infected individual. It is passive immunization in contrast to the active immunization of vaccines. This passive immunity naturally is of short duration—a matter of several weeks—in contrast the lasting immunity produced by vaccines.

Diagnosis. In the way of diagnosis serum is practically limited to the diagnosis of scarlet fever. Antitoxin (or convalescent serum) is injected intradermally at a site where the rash is marked and its effect on the rash noted. The rash of scarlet fever is a toxic manifestation and the antitoxin causes a disappearance or blanching of the rash at the site of injection to occur in five to six hours. This is known as the extinction test of Schultz-Charlton. Unfortunately, the questionable case of scarlet fever usually has insufficient rash to make the extinction test of any real diagnostic aid. In such instances the Dick test is of more help. The only other disease in which serum (antitoxin) is used for diagnostic purposes is, as mentioned above, in tularemia, a test the significance of which is not yet clarified and which evidently involves a different principle from that of the Schultz-Charlton test which is simply concerned with the neutralization of toxin with the antitoxin.

Prevention. In the matter of the prevention of disease sera again are somewhat restricted in their usefulness inasmuch as they are of value only as temporary protectors of the individual exposed to certain diseases. In general, except in the case of tetanus and gas gangrene, prevention of disease by the injection of horse serum is not a desirable procedure because it confers a fleeting protection, causes severe reactions in the case of scarlet fever antitoxin (this is not so true of the most recent preparations of scarlet fever antitoxin), and sensitizes the individual to horse serum. Where convalescent serum can be used this latter objection, of course, does not hold, and in protection of the infant or young child exposed to measles or scarlet fever, or of pregnant women exposed to scarlet fever, especially in the ninth month of pregnancy, the use of convalescent serum (10 cc. of convalescent or 20 cc. of adult immune serum) is extremely valuable. Likewise convalescent measles serum is of great value in the modification of measles in older children or adults by administering it on the sixth or seventh day after exposure. It should be stated, however, that some observers feel that modified measles does not confer lasting immunity to the disease. Prophylaxis of whooping cough and chickenpox with convalescent serum has also been tried but has not been found to be effective. In the case of mumps convalescent serum does seem to afford protection when given early in the incubation period. The injection of convalescent poliomyelitis serum into the individual exposed to poliomyelitis may also be a desirable procedure although there is no proof of this. Passive immunization against measles may also be conferred by the use of placental extract (immune globulin-human).[28] Injections of the earlier preparations of this material were accompanied by a fairly high percentage of reactions, but by recently improved methods of extraction reactions have been greatly reduced in frequency and severity but not entirely eliminated. For the prevention of measles immune globulin is given in the amounts of 2 cc. as soon as the contact has been recognized and again four days later; for modification a single dose of 2 to 4 cc. is given five to seven days after exposure.

Treatment. Outside of these few instances of utilization for diagnostic and preventive purposes sera find their greatest usefulness as therapeutic agents. In regard to the fundamental principles involved these sera may be divided into two classes: (1) those that are predominantly or purely antitoxic in their action, such as diphtheria, tetanus, meningococcus (new), and botulinus antitoxins; and (2) those that are antibacterial in their action, such as antimeningococcus (old) and antipneumococcus sera. The sera obtained by immunization with the

hemolytic streptococcus may possess both types of protective activity. In the treatment of diphtheria, tetanus, and botulism the action is that of neutralization of the toxins by the antitoxins; in the treatment of meningitis, pneumonia, and streptococcic infections, diseases that are characterized by a bacterial invasion of the tissues that does not occur in diphtheria, tetanus or botulism, it is not only necessary to neutralize the toxic products of the bacterial incitant of the infection but to destroy the bacteria that invade the tissues as well. These different sera irrespective of antitoxic or antibacterial activities, are effective in the treatment of infection after it has developed, and in order to be most effective must be administered early in the disease.

Diphtheria antitoxin is derived from a horse immunized by repeated injections of diphtheria toxin. It is unquestionably effective when given early, that is, on the first or second day of the disease, and when a product of proved potency is used. The younger the child the more urgent is early administration. At any age late treatment cannot repair the damage already done. Five hundred units per kilogram of body weight has been recommended as a suitable dose when given early, but the ideal dose depends upon the age of the patient and the severity of the disease. Children under two years should receive 5,000–6,000 units; over two, 7,000–8,000 units. In severe cases 10,000–15,000 units should be given and in malignant cases 50,000–100,000 units.

Tetanus antitoxin is obtained from a horse that has been immunized by repeated injections of tetanus toxoid followed by toxin until a high titre antitoxin is obtained. The usual prophylactic dose is 1,500 units administered as soon after receipt of the wound as possible. With an active case of tetanus early treatment is imperative and large doses must be given. Opinion varies as to ideal dosage but my own experience has led me to believe that a total dosage of 120,000 units is sufficient for children not having the onset of the disease in less than seven days after the injury. I have given 20,000 units intravenously and 20,000 units intramuscularly upon admission to the hospital followed by 20,000 to 40,000 units daily until the total of 120,000 units have been given. Sedation with nembutal or sodium amytal is almost as important as the administration of antitoxin.

At least four different organisms may be responsible for gas gangrene. Of these B. perfringens (Cl. Welchii) is the most frequent infecting agent. Perfringens antitoxin is the type of antitoxin customarily combined with tetanus antitoxin for prophylactic purposes, but for the treatment of gas gangrene a combination of perfringens and vibrion septique antitoxins is usually employed. These antisera contain antitoxins and no antibacterial substances. Experimental work by Henderson,[29] and others, indicates that, as far as vibrion septique is concerned, prophylactic antibacterial serum is more powerful in preventing infection than an antitoxic serum. However, the most satisfactory type of serum to use in the prevention and treatment of gas gangrene is still under discussion. In practice the ideal method of treatment would appear to be a type specific serum containing both antitoxic and antibacterial properties—an ideal of which there is very little hope of accomplishment at the present time.

Botulinus toxin is characterized by type specificity and ideally an antitoxin of the corresponding type should be used. Practically, the urgency of its need precluding delay in typing the organism, it is used as a polyvalent antitoxin. It has not been proved to be very effective.

Meningococcus, pneumococcus and streptococcus are also differentiated into types and it is therefore necessary to use either a polyvalent serum or one of limited valency corresponding to the type of the strain giving rise to the infection to be treated.

Antimeningococcus serum is prepared by the immunization of a horse with repeated injections of large doses of meningococcus including strains of each of the recognized serological types, and the beneficial effects of the serum are attributed to its antibacterial qualities (agglutination and complement fixation). Until recently none of the observers admitted the possibility of the pro-

duction of a soluble toxin but did agree to the elaboration of an endotoxin. However, since 1931 it has been demonstrated by Ferry[30, 31, 32, 33], that meningococci do produce a true soluble exotoxin against which a specific neutralizing antitoxin can be developed. The method employed for securing this exotoxin consists in cultivating the meningococcus in broth for four to six days. This is filtered and the filtrate is said to contain exotoxin. These filtrates contain a toxic substance specific for each of the four Gordon types of meningococcus and an additional toxic substance common to the four Gordon types. Ferry[30, 33] has also shown that the diluted toxin may be used similarly to the Schick and Dick test to recognize those individuals who are susceptible to meningitis, and that the susceptible ones may be made test negative by three injections of the toxin. Those opposed to the toxin production idea say that meningococcus is extremely susceptible to self-digestion, especially when grown in a fluid medium which liberates intracellular toxic substances or endotoxin and that therefore immunization of horses with such filtrates would result in the production of antiendotoxin the same as produced by the usual methods. Furthermore Fothergill claims it has not been shown that Ferry's antitoxin will neutralize the toxin. However, Ferry's antitoxin does seem to have some advantage over the regular antimeningococci serum as shown by Hoyne.[34] In this study the mortality rate in 211 cases treated by the old method was 45.9 per cent and in eighty-five cases treated by the new antitoxin was 23.5 per cent. However, it must be stated that the former figure is considerably higher than the mortality generally reported and that the usual rate given by other observers is around 25 per cent.

Perhaps a more significant report is that by Hoyne,[35] concerning the route of administration of antimeningococcus serum or meningococcus antitoxin (Ferry). In this study all cases of meningitis were treated by the intravenous route alone, giving massive doses. The antimeningococcus serum or meningococcus antitoxin was diluted with a 10 per cent dextrose in normal salt solution at least half and half and given in the dosage of 150–300 cc.—150 cc. to children and 200–300 cc. to adults. This dosage represents 50,000–100,000 units of antitoxin. For sixty-six patients who received only intravenous treatment at Cook County Hospital Contagious Disease Department, the fatality rate was 11.8 per cent. For forty-three of these patients who were twenty years of age or less the fatality rate was 2.3 per cent. Of these sixty-six patients thirty-one were treated with antitoxin and the mortality rate among them, irrespective of age, was only 6.4 per cent. The fatality rate for thirty serum-treated patients treated at the Municipal Contagious Disease Hospital was 20 per cent, making the rate for the two institutions 14.2 per cent. The discrepancy between the two institutions is not explained by Hoyne. It was found that fewer complications like eye and other paralyses, hydrocephalus, panophthalmitis, etc., occurred with Ferry's antitoxin than with antimeningococcus serum. These figures are quite remarkable especially for the antitoxin-treated patients, but the concensus of opinion seems to be that, until more evidence in favor of meningococcus antitoxin and in favor of intravenous therapy has accumulated, it would seem wise for the physician to employ the standard method of treatment. Early in the disease, intravenous and intrathecal antimeningococcus serum should be administered every six to eight hours. Later in the course of the disease the route and frequency of the injections should be governed by the condition of the patient and the laboratory examinations.

Antipneumococcus serum is obtained from a horse that has been immunized by the repeated injections of whole cultures of pneumococci of one or more of the serological types. There are many different strains of the pneumococcus and each one is type specific. At the present time potent antisera are limited to types 1 and 2. Types 7–8–14 antiserum are said to be about ready for commercial distribution. To be really effective antipneumococcus serum must be given early in the course of the disease—within the first three or four days. That means that

the practitioner must have ready access to a laboratory for the rapid determination of the type of pneumococcus with which his patient is infected. The serum is given intravenously in large dosage. A test dose of 5,000 units is given first and if no untoward reaction occurs further doses of 20,000 units are given at eight hourly intervals until 100,000 units are given or crisis occurs. The average treatment costs about sixty dollars for the serum.

In regard to streptococcus infection it is necessary to bear in mind that there is a multiplicity of strains of the streptococcus each of which is type specific and that these strains have two very distinct properties, namely, (1) toxin production and (2) invasive, pyogenic or pus-forming property. The ideal antiserum then would be type specific and contain both antitoxin and bactericidal and antipyogenic substances. Clinical experience, however, has shown that the chief beneficial results following the administration of antistreptococcus serum come from its neutralization of the toxin, and that in many instances outside of the treatment of scarlet fever and some cases of erysipelas, it is of little or no value because of its not being type specific or not being potent. Scarlet fever antitoxin is prepared from Dick toxin or in the case of Dochez antitoxin from the living bacteria themselves using an organism streptococcus scarlatinae which is supposed to be type specific for scarlet fever. It must be given early in the disease, not later than forty-eight hours after onset, in order to accomplish the most good. The same situation is true for the preparation of erysipelas antitoxin and in clinical experience it too is often not type specific. In those instances where erysipelas antitoxin turns out to be type specific for the infection existing in the patient the results of the treatment are most striking. On the other hand, where it is not type specific, it exerts no beneficial effect at all. Because of the specificity of the toxin producing property and the invasive qualities of the different strains of streptococci most other streptococcic antitoxins are polyvalent, and inasmuch as the attempt to broaden the valency results in a reduction in the potency of the antitoxin, such antitoxins are most erratic in their effects, mostly being quite unsatisfactory.

During the past few years considerable headway has been made in the treatment of undulant fever with antiserum, chiefly under the direction of Dr. Lee Foshay of Cincinnati. Antiserum has been obtained from goats and horses after subcutaneous inoculations with chemically treated suspensions of Brucellae of several different strains. The suspensions used so far have been those of formaldehyde killed bacteria or similarly killed bacteria that have subsequently been treated with nascent nitrous acid, a procedure which further "detoxifies" these bacteria and probably largely deaminizes their component proteins. The principle involved in the curative effect which follows the administration of the serum is not known for certain but it is thought that the chief therapeutic action of the antiserum is very probably its capacity to induce specific phagocytosis. At any rate, experience has shown that given in large doses such as 60–80 cc. it does have a definitely beneficial effect in shortening the course and severity of the disease. Not all reports are as striking as that of Bannick and Magath.[36] To a twenty-four-year-old man whose infection had existed five weeks they gave intravenously 20 cc. of the serum daily for four successive days. On the fifth day the temperature became normal and remained normal until the patient was discharged from the hospital two weeks after admission. The blood culture was positive for Br. abortus, however. Two weeks later the patient returned for a day's observation at the hospital and was found to have fever and positive blood culture, but felt well. A few days later his temperature became normal and he remained well thereafter and continued to do his usual work on the farm. Foshay[37] reports that twenty patients successfully treated with antibrucellosis serum have become afebrile in three to twenty-one days (average nine days), asymptomatic in from seven days to six weeks (average fifteen days), able to resume customary occupations in from eight days to two months (average three and one-half weeks) and have remained well for observation periods of from four

to twenty-nine months (average fourteen months); and that four other cases were unimproved, the failure in these cases being probably due to inadequate potency and insufficient dosage of some of the earlier sera.

Dr. Foshay[38, 39] also has been responsible for the introduction of serum therapy of tularemia. Serum is produced in goats and horses in much the same way as for undulant fever, using, of course, different strains of Pasteurella tularensis. The curative effect of this serum is supposed to be due to the stimulation of a specific phagocytosis and to the exertion of a specific desensitizing action. The optimal time for the administration of it is before the twelfth day of the disease. However, experience has shown that given at any time it greatly shortens the course of the disease, and shortens the duration of disability and of adenopathies. "There is usually a marked antitoxin-like action, consisting of a pronounced recession of fever (not complete disappearance), malaise, arthralgias, myalgias, and psychic disturbance usually appearing within three days after administration and often associated with a marked reduction in the sizes of the enlarged lymph nodes. There follows an acceleration in the healing of primary lesions and also of any previously performed glandular incisions. There is small but significant decrease in the incidence of suppurative adenitis, the decrease being greater the earlier treatment is instituted."[38] The serum is administered intravenously in doses of 15 cc. on two successive days in the average case. Sometimes larger doses are required. Children under fourteen rarely need more than a total of 15 cc., and subcutaneous or intramuscular injections are wholly satisfactory. Foshay[38] states: "There can be no doubt that it (tularemia antiserum) has greatly shortened the course of disease and the distressing and costly long period of disability, and little doubt that a number of deaths have been prevented."

REFERENCES

1. Huddleson, I. F., and Johnson, H. W.: "Brucellin," Possible Specific for Undulant Fever in Man; Preliminary Report. Am. J. Trop. Med., **13:** 485–504 (Sept.) 1933.
2. Giordano, A. S.: Brucella Abortus Infection in Man; the Intradermal Reaction as an Aid in Diagnosis. J.A.M.A., **93:** 1957–1958 (Dec. 21) 1929.
3. Foshay, L.: Aids in Diagnosis and Treatment of Tularemia. J. Med., **15:** 186–190 (June) 1934.
4. Foshay, L.: Intradermal Antiserum Tests: Bacterial-specific Response Not Dependent Upon Serum Sensitization but Often Confused With It. J. Allergy, **6:** 360–364 (May) 1935.
5. Wadsworth, A. B.: Practical Limitations of Vaccine and Serum Therapy. New England J. Med., **213:** 1285–1292 (Dec. 26) 1935.
6. Park, W. H., and von Sholly, A. I.: Report on Prophylactic Vaccination of 1,536 Persons Against Acute Respiratory Diseases, 1919–1920. J. Immunol., **6:** 103 (Jan.) 1921.
7. Jordan, E. A., and Sharp, W. B.: Influenza Studies; Effect of Vaccination Against Influenza and Some Other Respiratory Infections. J. Infect. Dis., **28:** 357 (April) 1921.
8. Ferguson, F. R., Davey, A. F. C., and Topley, W. W. C.: Value of Mixed Vaccines in Prevention of Common Cold. J. Hyg., **26:** 98–109 (March) 1927.
9. Dochez, A. R., Mills, K. C., and Kneeland, Y., Jr.: Studies on Common Cold; Cultivation of Virus in Tissue Medium. J. Exper. Med., **63:** 559–579 (April) 1936.
10. Kneeland, Y., Jr.: Protection Afforded by Vaccination Against Secondary Invaders During Colds in Infancy. J. Exper. Med., **60:** 655–660 (Nov.) 1934.
11. Kneeland, Y. Jr.: The Problem of Cold Prevention. J. Lancet, **56:** 532–533 (Oct.) 1936.
12. Wallfield, M. J.: Experimental Vaccination Against Colds in an Infants' Home. J. Pediat., **10:** 69-76 (Jan.) 1937.
13. Smith, W., Andrews, C. H., and Laidlaw, P. P.: Virus Obtained from Influenza Patients. Lancet, **2:** 66–68 (July 8) 1933.
14. Brightman, I. J., and Trask, J. D.: Recovery of Filterable Virus from Children with Influenza; Epidemiologic and Clinical Observations. Am. J. Dis. Child., **52:** 67–77 (July) 1936.
15. Dochez, A. R., Mills, K. D., and Kneeland, Y., Jr.: Studies on Virus of Influenza. J. Exper. Med., **63:** 581–598 (April) 1936.
16. Leslie, P. H., and Gardner, A. D.: Phases of Haemophilus Pertussis. J. Hyg., **31:** 423–434 (July) 1931.
17. Shibley, G. S., and Hoelscher, H.: Studies on Whooping Cough; Type Specific (S) and Dissociation (R) Forms of Haemophilus Pertussis. J. Exper. Med., **60:** 403–418 (Oct.) 1934.
18. Toomey, J. A., Ranta, K., Robey, L., and McClelland, J. E.: Phases or Types of H. Pertussis. J. Infect. Dis., **57:** 49–56 (July–Aug.) 1935.
19. Sauer, L. W.: Whooping Cough Study in Immunization. J.A.M.A., **100:** 239–241 (Jan. 28) 1933.
20. Madsen, T.: Vaccination Against Whooping Cough. J.A.M.A., **101:** 187–188 (July 15) 1933.
21. Sauer, L. W. Known and Unknown of Bacillus Pertussis Vaccine. Am. J. Pub. Health, **25:** 1126–1230 (Nov.) 1935.
22. Doull, J. A., Shibley, G. S., and McClelland, J. E.: Active Immunization Against Whooping Cough. Am. J. Pub. Health, **26:** 1097–1105 (Nov.) 1936.
23. Frawley, J. M.: Report on Krueger's Pertussis U.B.A. (Commercial). J. Pediat., **9:** 122–123 (July) 1936.
24. Munns, G. F., and Aldrich, C. A.: Haemophilus Pertussis Endoantigen (Krueger); Use in 122 Cases. J. Pediat., **5:** 590-595 (Nov.) 1934.

(Continued on page 316)

THE WISCONSIN MEDICAL JOURNAL

The Editorial Board

GEORGE H. EWELL, Madison F. GREGORY CONNELL, Oshkosh S. J. SEEGER, Milwaukee

Editorial Staff

GEORGE H. EWELL, Madison, Acting Medical Editor MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

A. W. ROGERS_____Oconomowoc
FRANK W. POPE_____Racine
JOSEPH DEAN_____Madison
W. CUNNINGHAM_____Platteville
A. H. HEIDNER_____West Bend
S. E. GAVIN_____Fond du Lac
H. A. JEGI_____Galesville
G. R. DUER_____Marinette
J. W. LAMBERT_____Antigo
JOSEPH F. SMITH_____Wausau
F. E. BUTLER_____Menomonie
F. G. JOHNSON_____Iron River
JOS. LETTENBERGER_Milwaukee

Annual Subscription_____Three Dollars-Fifty Cents Single Copies_____Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI APRIL, 1937 Number 4

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

Early Diagnosis Campaign

THE Early Diagnosis Campaign of the national and state tuberculosis associations deserves the cooperation of every private physician who wishes to do his share in meeting the challenge that the advocates of state medicine have hurled at the door of the medical profession. In the first place, its organizers have recognized from the beginning that no conceivable body of early-disease-detectors could match the case-finding potentialities of the wide-flung, existing body of diagnosticians now represented by the medical profession. In support of that contention, witness the constantly recurring theme directed to the laity: "Let your physician decide."

Obviously, private physicians cannot diagnose disease among people running past so rapidly as to prohibit the taking of a history, let alone applying a stethoscope or an x-ray beam. And so the tuberculosis organizations are trying, by widespread publicity campaigns among the public at large, to call attention to the danger of ignorance and delay, and to the value of taking their questions and suspicions, however well or ill-founded, to their doctors for an answer.

With over 80 per cent of the patients arriving at our tuberculosis sanatoria in advanced stages of the disease, there's a slip-up somewhere. Laymen frequently put all the blame on the doctors. Doctors often put it all on the carelessness, stupidity and procrastination of the victims. Neither is always right, of course, nor always wrong. Patients don't *want* to die; and doctors don't *want* to slip up on the diagnoses. The tuberculosis organizations, therefore, devised this instrument of Early Diagnosis Campaign to bring the parties together. And they set aside April for the get-together-time because more tuberculosis deaths occur in the spring months than at any other season. It should be harder, therefore, for physicians as well as patients to forget that tuberculosis continues to be the most deadly of all diseases in the late teen age and early adult years.

Under present-day circumstances, private physicians can with good grace round up the tuberculosis suspects and near-suspects among their families and study them. The public is now sensitized to—rather than sensitive about—that sort of procedure. But if they don't easily obtain such service from

their private physicians, they are likely to demand it from tax-supported ones. And most of us don't want that! H. E. D.

American Foundation Studies

FOR something over a year various Wisconsin physicians have been receiving correspondence from the American Foundation Studies in Government. Such physicians were asked to express their frank views on problems relating to the delivery of medical service. There has now been issued in two volumes a report of this foundation.

Except for certain preliminary statements, the report is in the nature of an opinion survey, as the introduction so well states:

"Although a competent understanding of the subject existed in very few quarters, acrid controversy had become general. High school students, for instance, during the past year have been animatedly debating the manner in which medical care should be provided, although mature thinkers and experienced workers have been unable to arrive at those definitions that must be agreed upon before any debate on principles could be intelligently conducted.

"That there is a *general* economic problem in the fact that a large number of the population is without 'adequate' anything has been somewhat lost sight of by some of those whose particular interest is in adequate medical care. They have given an unduly specific focus to a problem that is general. * * *

"The whole question is agitated in one quarter as a purely economic problem, in another as a social, in another as a purely professional and scientific. Few indeed have had the vision to see that all these aspects are involved and that no solution resting on only one of these bases and made without reference to the rest can be serviceable.

"Far-reaching solutions have, however, been proposed and hotly debated. The root of the difficulty seemed to us to lie in the fact that agitation for solutions has preceded analysis of what the present situation really is. * * * It is true that some excellent surveys have been made and some enlightening figures presented. But a good many of the factors in the organization of medical care, * * * are not susceptible to statement by figures. * * * But when these figures are put together to prove this and that, they curiously distort the situation they attempt to portray. They constitute a configuration but not a picture. For the situation with which we are trying to deal is not a multiple of facts and figures. It is a peculiar interrelation of factors entirely practical and factors entirely ideal. It is made up both of things that can be numbered and weighed and measured and of things that are imponderable by material scales. It certainly should not be beyond the power of civilization to make adequate medical care 'available' to all citizens. But to do so effectively will require a subtler and more complex procedure than the kind of distributive mechanism that might serve to make 'available' a commodity. * * *

"There are, as a matter of fact, more than one or two possible ways of revising the present organization of medical care. It seems axiomatic that no method of revision should be adopted until alternative methods have been weighed. What is finally decided upon should, in our view, emerge as a result of scientific comparative study of *all* the possibilities, and not as a result of sincere but myopic propaganda from exclusive advocates of insurance or any other specific program."

To the careful and thoughtful student of the subject, concerned only with the best interests of the patients to be served; to him who has nothing to prove but on the contrary sincerely wishes to perfect that which is already outstanding, this study is undoubtedly thought-provoking. Therein lies its outstanding value.

We may expect that sections of the report will be used to prove all sorts of positions. Any such use will be indeed a misuse.

We think, however, that except for such use by propagandists, the value of the study as a whole will be self-evident. It will be of greatest value to those who are willing to recognize that there is no single problem and that sound advance in the future, as in the past, will come from a continuation of constant change instead of the introduction of unproved new models.

Heat Exhaustion

SEVERAL reasons have prompted me to review the literature and to write a few remarks concerning heat exhaustion which during the year of 1936 was of acute importance. I was reminded of the subject on the coldest day of this winter by the statement of a floor supervisor that, viewed from the standpoint of nursing care for patients, cold weather had some advantages as well as disadvantages. She had noted that during the winter months patients undergoing extensive surgical operations came from the operating room in less of a state of shock than did similar cases during the summer months,—especially during an unusually hot spell. Most physicians, I believe, do not realize that the great majority of cases of heat exhaustion present symptoms as seen in patients suffering from surgical shock, and that in their treatment this phase of the picture should be recognized.

The physiological studies that have been made and the theoretical considerations under study by various groups concerning heat exhaustion are extremely interesting. Many should be discussed here but space does not permit, except to state it has been shown experimentally,—and clinically confirmed—that the primary pathology in these heat cases is dehydration and depletion of the salt stores in the tissues. Further studies must be made to determine which is the more important. There is very probably some difference and additional factors in the primary pathology of the so-called heat stroke case, but from a practical standpoint it is not absolutely necessary to know in order to give the patient good management. Neither does space permit of a discussion of the heat regulating mechanism of the body. With respect to the latter, one should always keep in mind that systemic disease usually adds additional burdens to the heat regulating mechanism.

The construction of Boulder Dam is considered a great engineering feat, but few people realize how much easier the task was accomplished by the application of modern methods of industrial medicine.

During the summer of 1931, there were 150[1] cases of heat exhaustion with seventeen deaths at Boulder Dam. By drastic changes in living conditions plus preventive measures, the chief of which encouraged a liberal intake of water and more salt, the number of cases occurring in the summer of 1933 (weather conditions averaging about the same) was thirteen,—nine mild and four severe.

The clinical manifestations of exposure to high external temperature are naturally variable, yet most cases have many points in common. One group of cases is often referred to as "heat cramps" or "stokers' cramps" where painful spasms especially of the abdominal muscles and the extremities occur. The cramps may also be generalized. The patient is usually depressed, pale, nauseated, and dizzy; the pulse is usually accelerated and the temperature normal. One such case was observed during the past summer where spasms were confined to the abdominal muscles and relieved in a few minutes by the oral administration of water to which salt had been freely added.

Another group of cases is commonly referred to as heat exhaustion or heat prostration, the chief feature here being a normal or usually subnormal temperature and the skin is usually covered with cold, clammy perspiration. This is the patient who presents the picture as seen in our cases of surgical shock, and one of the earliest measures of first aid should be the application of warmth.

There is the group where the condition is called heat stroke or "sunstroke" and high body temperature is the outstanding feature; it must be remembered that direct exposure to the sun's rays is not necessary to produce such a condition. The onset of these cases may be gradual with depression or excitement, or may be sudden with collapse followed by coma. In the hyperpyrexia cases, the skin is usually dry and hot. One of the first fundamentals in the treatment of such a case, therefore, should be the employment of

[1] Schofield, R. O.: Heat Prostration, Its Treatment at Boulder Dam. California & West. Med., Vol. 41 No. 2, Aug. 1934, pp. 83.

various measures to reduce the high temperature or to prevent its increase.

It becomes confusing when one attempts to classify or to group cases showing symptoms of exposure to heat, but it is necessary since the terms are old and in common use. From the standpoint of treatment, it is absolutely necessary to recognize the hyperpyrexia group as requiring one type of special treatment and the subnormal temperature group as requiring special treatment, in addition to certain fundamentals required by both.

The modern treatment of "heat exhaustion" is interesting since so new is the emphasis on the use of fluids and salt and yet so old is the prophylactic use of sodium chloride to prevent such states. It has been stated that for some time salted drinking water has been supplied to the crews of British vessels in the Red Sea and that they probably adopted the idea from the Arabs who have followed the practice for an unknown number of years.

Three Major Measures

There are three major measures for the prevention of heat exhaustion: minimize exposure, lessen heat production, and increase heat elimination. Of the three, the latter is the most amenable to control.

Since by evaporation of sweat heat elimination is increased, by promoting free sweating we thus aid heat elimination. Free sweating is aided by the intake of large quantities of water; small quantities taken at shorter intervals is advisable. The free use of fruit juices is desirable since the fruit acids tend to increase urinary output. To compensate for the loss of chlorides, not less than one teaspoonful daily should be taken in the water, and considerably more in some instances, as it has been estimated that as much as 30 to 60 grains may be lost in one hour.

In the active treatment, three most important principles must be followed,—restore normal body temperature, supply the absolutely necessary body fluids and restore normal chloride balance to the tissues.

The methods employed to restore normal body temperature will naturally vary with the means at hand. What is most important is that the physician determine whether the patient's temperature is low or high. When applying warmth or cooling procedures, the patient's temperature must be carefully watched as it is easy to throw a patient with a subnormal temperature into a state of hyperpyrexia and a patient with hyperpyrexia into a most profound state of shock with subnormal temperature, and collapse. This latter reaction is most likely to occur where the ice-water-tub-bath is used. This procedure is not as highly recommended as formerly and, considering the dangers, makes it less desirable than the use of cold compresses, wrapping the patient in sheets and sprinkling with cold water, at the same time keeping a current of air in motion about the patient by fanning or the use of an electric fan.

The administration of stimulant drugs is at times indicated and essential. Much less stress, however, is being laid on this phase of the treatment than was formerly done, since it has been shown the administration of physiologic saline with 5 or 10 per cent glucose is more essential and more efficacious than the use of such drugs. Probably the most efficient drugs are caffeine sodium benzoate, five (5) to seven (7) grains, given hypodermically every three or four hours, alternated with strychnine sulphate, one-thirtieth (1/30) grain, every three or four hours unless the patient is having convulsions.

As has been previously stated, the restoration of body fluids and chlorides are the most important factors. The patient is encouraged to drink water containing two teaspoonfuls of salt to one quart. If vomiting is persistent, the repeated and slow injections of 1 per cent saline solution into the rectum should be done, injecting slowly and as much as the patient can retain.

In the hospital, the intravenous administration of saline solution containing glucose can be given in sufficient and adequate amounts to restore the fluid and salt loss. The present-day preparation of these solutions by the commercial houses, together with containers, makes this procedure feasible outside of the hospital. G. H. E.

. . . . THE PRESIDENT'S PAGE . . . .

Again the First Line

WHEN this page is published the immediate objective of the cancer control campaign by the Women's Field Army will be no doubt successfully completed. This has been a splendid work, and we hope that the benefits attained will be satisfactory to those interested in the movement.

The next activity of which the public will be made acutely aware is that for the eradication of syphilis. Many newspapers are, for the first time, printing the word and are showing considerable interest in the movement. This movement is, as you know, being activated and directed by the United States Public Health Service, and, with sustained interest and action, it will, no doubt, obtain its objective.

The cancer problem and the problem of the eradication of syphilis are quite different. Cancer is an increasing menace of which we have no knowledge as to the cause and for which we have no specific treatment. In syphilis we have a very definite, positive means of immediate diagnosis and a specific treatment. Furthermore, we know that cancer has apparently been increasing while syphilis has been rapidly decreasing in the past generation. This is true not only in Wisconsin, which stands out conspicuously in this Nation, but there has been a definite decrease both numerically and in the degree of virulency throughout the world, due presumably to the factors above-mentioned. The profession in this State, our State Board of Health, and our psychiatric laboratory have in a quiet, persistent way accomplished more in this State than has been accomplished in any other. Dr. Lorenz's splendid article in last month's Journal gives us an accurate picture of what has happened in Wisconsin.

There is a great deal of phobia already developing, which is unfortunate, but which, I presume, is inevitable in view of the type of publicity which seems to be desired or perhaps necessary.

The profession might very well lessen the fear of acquiring the disease innocently, and have the public realize that a very large percentage of acquired syphilis is the result of convention philandering or promiscuity of some sort.

Incidentally, the pernicious, poor relation of Neisserian extraction seems to be overlooked. Its name rarely appears in the social register of diseases in the important newspapers. Realizing, as we all do, that this problem at the moment apparently transcends that of syphilis, it would seem that we should develop some plan to direct the eradicating David, so that the missile from his sling shall strike down and destroy the entire venereal Goliath.

The final and ultimate loosening of the grasp of these diseases, as of most other diseases, will be accomplished largely by the first line of attack, those who come in contact with the very first inception of the infections, and upon whom the problem of intimate lay education ultimately rests,—the Family Physician.

S. E. Gavin

Society Proceedings

Fond du Lac

Dr. H. C. Schumm of Milwaukee, specialist in orthopedics, was the speaker at the regular monthly dinner meeting of the Fond du Lac County Medical Society at the Hotel Retlaw, Fond du Lac, on March 18. Doctor Schumm spoke on fractures of the hip and illustrated his lecture with motion pictures and lantern slides.

Manitowoc

The Manitowoc County Medical Society held its regular meeting on Thursday noon, March 18. Mr. Lewis Hall, representative of the National Boy Scout Council addressed the society on the means employed to elevate the health standards of Boy Scouts and the methods of reducing accident hazards. Among other important issues the Cancer Committee presented plans whereby the entire county may have speakers available for the purpose of enlightenment on the subject of cancer.

Milwaukee

There was an attendance of about 400 persons at the meeting of the Medical Society of Milwaukee County on March 12. The following scientific program was presented:

"The Value of the Sedimentation Rate in Diagnosis," Dr. M. G. Peterman, Milwaukee.

"A Modern Conception of the Common Cold," Dr. W. E. Grove, Milwaukee.

"The Acute Abdomen in Children," Dr. Joseph Brennemann, professor of pediatrics, School of Medicine of the Division of Biological Sciences, University of Chicago.

Outagamie

At a meeting of the Outagamie County Medical Society on Thursday evening, February 25, Dr. E. F. Mielke of Appleton presented a paper on "Diagnosis and Treatment of Carcinoma of the Lower Bowel," illustrated by moving pictures entitled "Abdominal Perineal Resection for Carcinoma of Rectum" a two-stage operation by Doctor Laehy. Dr. E. F. McGrath, also of Appleton, discussed x-ray diagnosis. The meeting was held at the Hotel Appleton and was preceded by a 6:30 dinner. About thirty-five members of the society were present.

At a dinner meeting of the society on March 18 at the Northern Hotel, Appleton, Dr. Loyal Davis, professor of surgery, Northwestern University, talked on "Nerve Injuries and Their Treatment."

Polk

Dr. L. O. Simenstad of Osceola was host to the members of the Polk County Medical Society at their annual dinner meeting Thursday evening, February 18, at the Hotel Osceola. Every member of the society was present at this meeting, and following the dinner several interesting discussions were presented.

Portage

A dinner meeting of the Portage County Medical Society was held at the Hotel Whiting, Stevens Point, on February 25. Following the meeting, movies of the members were taken by Dr. H. P. Benn. Dr. W. S. Middleton, dean of the Medical School of the University of Wisconsin, gave a talk on the treatment of pneumonia.

Sauk

At a meeting of the Sauk County Medical Society at the home of Dr. F. R. Winslow in Baraboo, on Thursday evening, March 4, the society decided to sponsor a tuberculosis program for Sauk County. The following committee, which will have charge of the work, was appointed: Dr. H. J. Irwin, Baraboo; Dr. E. V. Stadel, Reedsburg; and Dr. H. A. Bachhuber, Sauk City. The details of this program will be announced later.

Washington—Ozaukee

At the meeting of the Washington–Ozaukee County Medical Society on Thursday, February 25, the principal speaker was Dr. R. G. Edwards of Kewaskum. His subject was "The General Use of Local and Spinal Anesthetics." Several movies on various subjects were presented after the paper.

Waukesha

The Waukesha County Medical Society held its March meeting on the third of the month at Statesan. Dr. J. W. Gale, associate professor of surgery at the University of Wisconsin, was the principal speaker.

Winnebago

The February meeting of the Winnebago County Medical Society was held at the Winnebago State Hospital on February 25. Dr. G. E. Seaman addressed the society on "The Medical Service of a Mental Hospital." Interesting cases were presented by Doctors W. F. Lappley, R. C. Morrison, Leo Perssion, and B. J. Hughes, all members of the staff of the Winnebago State Hospital. Dr. S. E. Gavin, president of the State Medical Society, was present, and spoke briefly at the conclusion of the meeting.

Sixth District

Officers of the county medical societies in the sixth district met on March 4 at the Conway Hotel, Appleton, with Dr. S. E. Gavin, Fond du Lac, president of

the State Medical Society of Wisconsin, to consider problems of the group. About twenty officers from societies in Fond du Lac, Winnebago, Outagamie, Brown, and Door Counties attended the session.

Milwaukee Academy of Medicine

Dr. Rudolph Schindler, who is associate clinical professor of medicine at the University of Chicago and also attending gastroscopist at Michael Reese Hospital and consulting gastroscopist at Cook County Hospital, was guest speaker at the meeting on March 16 of the Milwaukee Academy of Medicine.

Milwaukee Neuro-Psychiatric Society

Members of the Milwaukee Neuro-Psychiatric Society were guests of Dr. W. H. Studley at Shorewood Hospital-Sanitarium on Thursday, March 25, at a dinner meeting. The program was as follows:

"Hypoglycemic Shock Therapy in Dementia Praecox," Dr. J. L. Kinsey (by invitation) and Dr. R. A. Jefferson.

"Clinical Studies," by Staff of Shorewood Hospital.

Milwaukee Society of Clinical Surgery

The Milwaukee Society of Clinical Surgery met at the University Club, Milwaukee, on March 23, and the following scientific program was presented:

"Surgery of the Colon," Dr. Louis Fuerstenau, Milwaukee.

"Surgery of the Prostate," Dr. W. J. Carson, Milwaukee. Discussion by Dr. M. W. Sherwood, Milwaukee.

"The Surgical Treatment of Hypertension," Dr. Winchell McK. Craig, professor of neurosurgery, University of Minnesota, Rochester, Minnesota. Discussion by Dr. Francis Murphy, Milwaukee.

West Allis Physicians' Club

Four motion pictures on medical subjects were shown at the regular monthly meeting of the West Allis Physicians' Club at the home of Dr. R. A. Toepfer on Tuesday, March 2. The pictures were shown by Mr. Leonard Inderbitzen, representative of a medical supply company. Motion pictures of the joint picnic of the West Allis physicians, dentists, and pharmacists were also shown by Mr. Harold Stamm, science instructor at the West Allis High School.

Wisconsin Anti-Tuberculosis Association

Dr. G. C. Owen, medical director of Sunny View Sanatorium, Winnebago, addressed members of the Wisconsin Anti-Tuberculosis Association at their meeting at Sunny Rest Sanatorium, Racine, on Saturday, February 20. His subject was "Nontuberculosis Admission to a County Sanatorium." Dr. C. O. Schaefer, Racine, was general chairman of the meeting.

THE WOMAN'S AUXILIARY

President—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison

President Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit

Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison

Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine

Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine

Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior

Hygeia Chairman—
Mrs. H. H Hull, Brandon

Organization Chairman—
Mrs. Willard Pease, Rio

Archives and Historian—
Mrs. Harry Keenan, Stoughton

Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London

Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee

Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

Midwinter Meeting of the Executive Board, Woman's Auxiliary to the State Medical Society of Wisconsin

ON FEBRUARY 24, 1937, the following members of the Executive Board of the Woman's Auxiliary to the State Medical Society of Wisconsin gathered at the University Club in Milwaukee, for the midwinter meeting of the Board:

Mrs. C. A. Harper, Madison, state president.

Mrs. Robert E. Fitzgerald, Wauwatosa, national president.

Mrs. Eben J. Carey, Wauwatosa, national treasurer and president, Milwaukee County Auxiliary.

Mrs. J. Gurney Taylor, Milwaukee, national corresponding secretary and state parliamentarian.

Mrs. Oscar Friske, Beloit, state president-elect.

Mrs. Frank W. Pope, Racine, state treasurer.

Mrs. Walter E. Sullivan, Madison, state secretary.

Mrs. I. F. Thompson, Racine, public relations chairman.

Mrs. H. H. Hull, Brandon, Hygeia chairman.

Mrs. F. J. Pfeifer, New London, press and publicity chairman, and president-elect of the Waupaca County Auxiliary.
Mrs. James Sargent, Milwaukee, nominating committee chairman.
Mrs. Harry Heeb, Milwaukee, member of nominating committee.
Mrs. H. J. Cannon, Milwaukee, chairman, state convention.
Mrs. E. S. Schmidt, Green Bay, president, Brown–Kewaunee–Door County Auxiliary.
Mrs. D. B. Dana, Kewaunee, president-elect, Brown–Kewaunee–Door County Auxiliary.
Mrs. J. M. MacGregor, Portage, president, Columbia–Marquette–Adams County Auxiliary.
Mrs. Harold E. Marsh, Madison, president, Dane County Auxiliary.
Mrs. J. P. Connell, Fond du Lac, president, Fond du Lac County Auxiliary.
Mrs. A. L. Mayfield, Kenosha, president, Kenosha County Auxiliary.
Mrs. R. G. Washburn, Milwaukee, president-elect, Milwaukee County Auxiliary.
Mrs. C. D. Neidhold, Appleton, president, Outagamie County Auxiliary.
Mrs. E. E. Kidder, Stevens Point, president, Portage County Auxiliary.
Mrs. J. F. Henken, Racine, president, Racine County Auxiliary.
Mrs. E. C. Pfeifer, Racine, committee chairman, Racine County Auxiliary.
Mrs. W. W. Crockett, Beloit, president, Rock County Auxiliary.
Mrs. F. A. Leighton, Sheboygan Falls, president, Sheboygan County Auxiliary.
Mrs. Paul Mason, Sheboygan, president-elect, Sheboygan County Auxiliary.
Mrs. C. C. Stein, Port Washington, president-elect, Washington–Ozaukee County Auxiliary.
Mrs. R. D. Thompson, Statesan, president, Waukesha County Auxiliary.
Mrs. J. H. Murphy, Clintonville, president, Waupaca County Auxiliary.

Before luncheon a few Auxiliary committees met for conferences, while the other Board members chatted in informal groups.

At one o'clock a delicious luncheon was served, after which the Board held its business meeting in the Club library. Mrs. C. A. Harper, president of the State Medical Auxiliary, presided. Three officers of the National Auxiliary were also present: Mrs. Robert E. Fitzgerald, Wauwatosa, national president; Mrs. J. Gurney Taylor, Milwaukee, national corresponding secretary; Mrs. Eben J. Carey, Wauwatosa, national treasurer.

Mrs. Fitzgerald gave a gracious word of greeting to the Board, and Mrs. Carey spoke briefly of the gratifying growth and development of the State Auxiliary. Mrs. H. J. Cannon, chairman of the state convention next September, was introduced to the group.

Mrs. Harper spoke of the valuable permanent exhibit dealing with pioneer medical history in Wisconsin which the Woman's Medical Auxiliary has collected and presented to the Historical Museum in Madison, and which is being added to continually.

She also reported the organization of two new county auxiliaries since last September: the Washington–Ozaukee Auxiliary of which Mrs. H. Meyer Lynch, West Bend, is president; and the Waupaca Auxiliary of which Mrs. J. H. Murphy, Clintonville, is president.

Mrs. Harper and Mrs. Fitzgerald stressed the importance of the present nation-wide movement to combat cancer, and urged the active cooperation of the county medical auxiliaries in this project.

The following reports of the state committee chairmen were given:

Public Relations: Mrs. I. F. Thompson.
Program: Mrs. Harper for Mrs. J. H. Weisberg of Superior.
Hygeia. Mrs. H. H. Hull.
Organization: Mrs. Harper for Mrs. W. A. Pease of Rio.
Archives and Historian: Mrs. Harper for Mrs. Harry Keenan of Stoughton.
Press and Publicity: Mrs. F. J. Pfeifer.
Nominating Committee: Mrs. James Sargent.

Interesting reports of the following county medical auxiliaries were given:

Milwaukee: Mrs. Eben J. Carey, president.
Kenosha: Mrs. A. L. Mayfield, president.
Brown–Kewaunee–Door: Mrs. E. S. Schmidt, president.
Sheboygan: Mrs. F. A. Leighton, president.
Dane: Mrs. Harold E. Marsh, president.
Fond du Lac: Mrs. J. P. Connell, president.
Outagamie. Mrs. C. D. Neidhold, president.
Washington–Ozaukee: The state secretary reported for Mrs. Lynch who could not be present.
Portage: Mrs. E. E. Kidder, president.
Racine: Mrs. J. F. Henken, president.
Rock: Mrs. W. W. Crockett, president.
Waukesha: Mrs. R. D. Thompson.

After a brief, interesting talk by Mrs. Harper, the meeting, a most stimulating, inspiring one, was adjourned.

Brown—Kewaunee—Door Auxiliary Places State Society's Program on WHBY

The Woman's Auxiliary to the Brown–Kewaunee–Door County Medical Society, through its president-elect, Mrs. D. B. Dana, Kewaunee, has secured time for the presentation of the State Medical Society's recorded health programs. This feature will be presented at 6:45 each Tuesday, Wednesday and Thursday evening over station WHBY (1200). The series was inaugurated on March 23.

The first two weeks' program as presented over WHBY was as follows:

March 23—Stuttering.
March 24—Goiter.
March 25—Hobbies and Mental Health.
March 30—Pneumonia.
March 31—St. Vitus' Dance.
April 1—At Home With Safety.

This Auxiliary is to be complimented on its efforts to place before the public in its district reliable and authentic health information.

County News Items

Brown—Kewaunee—Door

Twenty-seven members of the Woman's Auxiliary to the Brown–Kewaunee–Door County Medical Society were present at the February meeting at the home of Mrs. M. H. Fuller. Plans were made to give a large social function to raise funds for contributions to St. Mary's Infants' Home, which is the philanthropic project of the group, and to provide for the subscriptions to Hygeia, the scientific health magazine, which the Auxiliary places in rural and city schools. After the business meeting Miss Emma Toule gave a report on the conference on the cause and cure of war which she attended recently as the representative of the Green Bay Woman's Council. Miss Patricia Knox gave a reading, "An Afternoon with Lincoln," from Drinkwater's play. Tea was served at the close of the meeting, with Mrs. D. B. Dana of Kewaunee presiding. Mrs. E. G. Nadeau, the social chairman, was assisted by Mrs. W. W. Kelly, Mrs. F. J. Gosin, and Mrs. H. S. Atkinson.

Mrs. C. J. Chloupek entertained thirty members of the Woman's Auxiliary to the Brown–Kewaunee–Door County Medical Society on Wednesday, March 17. Final plans were made for the card party to be given on April 10 at the Northland Hotel. Mrs. R. L. McDonald spoke on a subject appropriate to St. Patrick's day, telling of a recent trip to Ireland and describing the people and the country. She also displayed some china and lace which she had brought back with her. The tea table was appointed in green and white for the serving of tea after the meeting, with Mrs. G. F. Goggins of De Pere pouring. Among those present were two guests, Mrs. Mark Murray of Pender, Nebraska, who was the guest of her daughter, Mrs. L. D. Quigley, and Mrs. Beatrice Burgess, the guest of Mrs. M. H. Fuller.

Dane

The Woman's Auxiliary to the Dane County Medical Society met for a one o'clock luncheon on March 10 at the University Club. Miss Lavilla Ward, of the State Department of Public Instruction, spoke on "What Are We Doing in Wisconsin for Our Deaf and Handicapped Children?"

Fond du Lac

Mrs. J. P. Connell, president of the Woman's Auxiliary to the Fond du Lac County Medical Society, discussed "County Child Welfare Work" at the regular dinner meeting on Thursday, February 18, at the Hotel Retlaw. The dinner, which was in charge of the Social Committee, of which Mrs. Ralph G. Mills is chairman, was followed by a brief business session.

Manitowoc

Mrs. Arthur Stueck, president, presided at the February meeting of the Woman's Auxiliary to the Manitowoc County Medical Society on February 17 at the Catholic Community Center. The meeting was preceded by a luncheon with fourteen members present.

The program following consisted of a talk by Miss Conover, public school nurse, on the subject of her duties. Mrs. Reginald Hammond read an article from the current issue of "Coronet," the title of which was "Pre-Medicos," by Edward M. Darrows. Plans were made for a card party, the proceeds of which will be used to place Hygeia in public institutions.

The following new officers have been elected for 1937:

President—Mrs. Arthur Stueck.
President-elect—Mrs. F. E. Turgasen.
Secretary-treasurer—Mrs. J. H. Rees.
Publicity chairman—Mrs. M. P. Andrews.
Public Relations chairman—Mrs. W. E. Donohue.
Program chairman—Theodore Teitgen.
Archives chairman—Mrs. C. M. Gleason.
Hygeia chairman—Mrs. Lawrence Gregory.

Milwaukee

A St. Patrick's Day luncheon, held at the Crystal Ballroom of the Schroeder Hotel on Friday, March 12, was enjoyed by about 120 members of the Woman's Auxiliary to the Medical Society of Milwaukee County.

Dr. Stephen E. Gavin, president of the State Medical Society of Wisconsin, spoke on "The Relationship

of Organized Medical Units," and the Honorable Michael S. Sheridan, judge of the court of Milwaukee County, discussed "The Probate Court and Old Age Pensions." Mrs. Louis M. Warfield, music chairman, presented Camille Reszczynski, soprano, in a group of delightful songs, accompanied by Gladys Hewitt at the piano.

The regular business meeting of the Auxiliary followed the program.

A letter from Mr. Theodore Wiprud, executive secretary of the Medical Society of Milwaukee County, was read, thanking the auxiliary for the sum of $135 which was donated following decision by the auxiliary to contribute this amount out of its Philanthropic Fund to the society's program of public education.

Mrs. William Jermain, chairman of the Visiting Nurses' Association Committee, announced that the money appropriated some time ago by the auxiliary had been used to assist the Visiting Nurses' Association in the purchase of a loan closet maintained by them, and that meetings of a voluntary sewing group were taking place the first Tuesday of each month, open to all interested. An invitation from the Visiting Nurses' Association was read, inviting all members of the auxiliary to tea and an inspection of its new offices and headquarters at 1038 North Cass Street directly following the meeting.

Mrs. Robert Washburn, chairman of the Committee on Public Relations, reported the placing of twelve speakers during the month of February.

Mrs. Eben J. Carey, president of the auxiliary, announced the election of the following new members: Active: Mrs. H. E. Bardenwerper, Mrs. B. I. Bender, Mrs. J. J. Colgan, Mrs. E. F. Cook, Mrs. N. F. Dettman, Mrs. L. J. Deysach, Mrs. Edward Eisenberg, Mrs. Benjamin L. Fabric, Mrs. G. S. Flaherty, Mrs. J. A. Garland, Mrs. Victor Hunkel, Mrs. J. A. McElligott, Mrs. Salvatore Megna, Mrs. A. F. Rheineck, Mrs. Fordyce Ross, Mrs. W. A. Schweitzer, and Mrs. J. F. Wyman. Associate: Mrs. F. W. Reilly and Mrs. J. L. DeCock. Due to the splendid work of Mrs. N. Warren Bourne, membership chairman, twenty-nine new members have been welcomed into the auxiliary since the beginning of the year.

Attention was called to the national drive being conducted by the American Society for the Control of Cancer, and auxiliary members were invited as individuals to assist in this work.

Announcement was made of the following future events of interest.

(1) That a card party, the proceeds of which will be used entirely for the program of public education, will be held on May 19, with Mrs. Charles Fidler as chairman.

(2) That a rummage or white elephant sale will be held April 23 and 24, the proceeds to be used by the Hygeia Committee in fulfilling its quota of subscriptions, the balance to be placed in the Philanthropic Fund to assist with the program of public education undertaken by the Medical Society of Milwaukee County.

(3) That the sixth annual informal dinner dance, sponsored by the Woman's Auxiliary to the Medical Society of Milwaukee County and the society's Social Committee will be held on Saturday, April 17, at 8:00 p. m. at the Crystal Ballroom, Hotel Schroeder.

Outagamie

A doctor's viewpoint of the campaign sponsored by the American Society for the Control of Cancer was presented to the Woman's Auxiliary to the Outagamie County Medical Society at a dinner meeting recently at the Hotel Northern, Appleton. Dr. J. B. MacLaren of Appleton was the speaker and his subject was cancer and the campaign.

Portage

The members of the Woman's Auxiliary to the Portage County Medical Society met at the home of Mrs. D. S. Rice on Monday evening, March 1, at seven o'clock for dessert and coffee. Following the business meeting the question of a loan closet to be located in the Red Cross rest rooms was discussed, and Mrs. H. M. Coon was appointed to purchase the necessary articles for such a loan closet. Mrs. E. E. Kidder gave a report of the mid-winter executive board meeting which she attended in Milwaukee.

Sheboygan

The Woman's Auxiliary to the Sheboygan County Medical Society enjoyed a social afternoon at the home of Mrs. F. A. Leighton of Sheboygan Falls recently. A pot-luck luncheon was served to twenty-four guests, and cards were played. Mrs. C. A. Squire of Sheboygan received high honors; Mrs. Lawrence Smith of Racine, second; and Mrs. Edward T. Hougen of Oostburg, third.

Mrs. Lawrence Smith of Racine, state president of the American Legion Auxiliary, attended as the guest of Mrs. Arthur J. Brickbauer of Plymouth, and spoke briefly during the afternoon of Legion Auxiliary work.

Waukesha

The president of the Woman's Auxiliary to the Waukesha County Medical Society, Mrs. R. D. Thompson of Statesan, has resigned, and her position is being filled by Mrs. F. L. Grover of Hartland, who was president-elect. Mrs. Thompson and her husband are moving to Orlando, Florida.

Winnebago

The regular meeting of the Woman's Auxiliary to the Winnebago County Medical Society was held at Sunny View Sanatorium on February 22. The group gathered for luncheon, after which Dr. E. B. Pfefferkorn and Miss Cava Wilson furnished an informa-

tive program. Doctor Pfefferkorn showed a movie, "Behind the Shadows," which was recently purchased by the sanatorium and is designed for lay education. Miss Wilson presented a short talk on the early diagnosis of tuberculosis.

Mrs. R. C. Lowe, Neenah, entertained the Woman's Auxiliary to the Winnebago County Medical Society at her home recently. Mrs. George Williamson and Mrs. S. D. Greenwood were assisting hostesses. Reports were presented by Mrs. Harold Baxter, treasurer; Mrs. W. N. Linn, program chairman; Mrs. H. A. Romberg, public relations chairman, and Mrs. Milton Donkle, Hygeia chairman. Mrs. Rose Sherman presented a paper on the lives of medical men in the early days of Winnebago County settlement. Dr. Christian Linde, Dr. Charles W. Oviatt, and Dr. W. A. Gordon were those whose lives were discussed.

News Items and Personals

Four appointments for a seven-year term to the State Board of Health were sent to the Senate for confirmation by Governor Philip F. La Follette the middle of March. Dr. C. A. Harper, state health officer, was reappointed by the Governor, as was Dr. Stephen Cahana of Milwaukee. New appointees are Dr. R. L. MacCornack of Whitehall and Dr. W. W. Kelly of Green Bay. Holdover members of the board are Dr. Joseph Dean of Madison, president, Dr. J. J. Seelman of Milwaukee, president-elect, and Dr. Mina B. Glasier of Bloomington, vice-president.

—△—

Announcement is made by the Crippled Children Division, Madison, of clinics for crippled children to be held in Appleton and Kenosha under the joint auspices of the Crippled Children Division of the State Department of Public Instruction and the Outagamie and Kenosha County Medical Societies. The clinic in Appleton will be held on April 17 and that in Kenosha on April 24.

—△—

Dr. Earl V. Hicks announces that he has sold his practice in Blanchardville and has moved his offices to New Glarus.

—△—

Dr. R. D. Thompson, who for the last eight years has been superintendent of the Wisconsin State Sanatorium at Statesan, has resigned his position to accept the position of medical director and superintendent of a new 400-bed institution which is now nearing completion at Orlando, Florida.

—△—

Dr. E. L. Bolton was elected chief of staff of St. Elizabeth's Hospital, Appleton, at a recent staff meeting. He succeeds Dr. G. J. Flanagan, Kaukauna, who served as chief of staff during 1936. Dr. A. B. Leigh was elected vice-chief of staff, and Dr. W. O. Dehne was elected secretary.

—△—

The American Medical Golfing Association will hold its twenty-third annual tournament at beautiful Seaview Country Club, Atlantic City, New Jersey, on Monday, June 7. All male Fellows of the American Medical Association are eligible and cordially invited to become members of the A. M. G. A. Write the executive secretary, Mr. Bill Burns, 2020 Olds Tower, Lansing, Michigan, for an application blank.

—△—

Experiences of other nations in socialization of medicine and current discussion of health insurance plans in this country were outlined before the Fond du Lac Lions Club in an address by Dr. S. E. Gavin, president of the State Medical Society of Wisconsin, at a regular meeting at the Elk's Club on March 10.

—△—

Dr. Joseph F. Smith, Wausau, has been named to serve on the State committee for the annual convention of the International Society for Crippled Children at Milwaukee, May 9 to 13, Mr. T. Arthur Turner, Madison, executive secretary of the Wisconsin Association for the Disabled, has announced. The meeting will be held at the Schroeder Hotel, Milwaukee, and Wisconsin speakers will include Miss Marjorie Taylor, Milwaukee; Mr. Herbert Laflin, Milwaukee; Hon. Francis E. McGovern, Milwaukee; and Dr. Edward T. Thompson, Milwaukee.

—△—

Dr. E. A. Pohle, professor of radiology, University of Wisconsin, addressed the German Medical Society of Chicago on "Indications and Contraindications for Radiation Therapy" on February 2.

—△—

Dr. R. C. Buerki, Madison, was the guest speaker at the regular meeting of the Madison Health Council held in Esther Vilas Hall at the Y. W. C. A. on February 24. Doctor Buerki's address was on group hospitalization.

—△—

Dr. James C. Sargent, president-elect of the State Medical Society of Wisconsin, spoke on the subject, "Shall Medicine be Socialized?" at the Rotary meeting in Madison on March 4. Doctor Sargent is president of the Rotary Club of Milwaukee.

Dr. J. S. Ackerman, who for thirteen years has been practicing medicine in Cudahy, has moved his offices to the Mariner Tower in Milwaukee. His nephew, Dr. E. J. Ackerman, who served as his assistant, has taken over his duties in Cudahy.

BIRTHS

A son to Dr. and Mrs. Adolph M. Hutter, February 22, at St. Agnes Hospital, Fond du Lac.

DEATHS

Dr. Frederick J. Gaenslen, Milwaukee, orthopedic surgeon, died on March 11 after an illness of several months. Born in Milwaukee on December 7, 1877, he received his bachelor of science degree from the University of Wisconsin in 1899. He studied medicine at Johns Hopkins University, Baltimore, under Sir William Osler, receiving his doctorate in 1903. He spent three years as interne at German Hospital (now Lenox Hill Hospital) in New York from 1903 to 1906, after taking a special course at Harvard University in 1901. He also made numerous trips abroad to observe orthopedic work in clinics in England, France, Germany, and Austria.

Beginning in 1918 Doctor Gaenslen served for several years as associate professor of orthopedic surgery at Marquette University, and since 1925 has been professor of orthopedic surgery at the University of Wisconsin. In 1936 Doctor Gaenslen served as president of the American Orthopedic Association and in 1935 was chairman of the orthopedic division of the American Medical Association. He was also among the fifteen Americans selected for membership upon the founding of the International Orthopedic Society. In addition, Doctor Gaenslen was a member of the American College of Surgeons, the Milwaukee Surgical Society, the Milwaukee Academy of Medicine, the Alpha Mu Pi Omega medical fraternity, and the State Medical Society of Wisconsin, of which he was president in 1929. He was staff member at Columbia, Milwaukee, Milwaukee Children's, and County General Hospital in Milwaukee, and the Wisconsin General Hospital in Madison.

Doctor Gaenslen is survived by his widow; a son, G. Frederick; a daughter, Elinor; his mother, Mrs. Mathilda H. Gaenslen; two brothers, Charles W. and Richard H. Gaenslen; and a sister, Mrs. Frank Marshall, all of Milwaukee.

Dr. Charles D. Kelly, of Blair, was born September 19, 1871, at St. Paris, Ohio. He died Sunday, February 21, at a hospital in Chicago, death being due to peritonitis.

Doctor Kelly was graduted from the University of Illinois College of Medicine in 1905, and immediately afterward he was connected with the health department of Cook County for several years. He started his practice in Blair in 1907.

During the World War Doctor Kelly spent twenty-three months in France as a major in the medical corps.

Surviving him are his son, Dr. Worrell Kelly of Chicago and three brothers, Dr. Frank Kelly of Indiana, Dr. Ernest Kelly of Chicago, and the Rev. Claude Kelly of Clarymore, Oklahoma.

Dr. Edward A. Bemis died at his home in Batavia on Tuesday, February 23. He had practiced medicine in Batavia for forty-eight years, having settled there in 1889. He attended the public schools of Lyndon, where he was born in 1864, and later continued his education at the Medical School of Northwestern University, from which he was graduated in 1888.

Doctor Bemis is survived by his widow, one son, and two grandsons. His son, Dr. Ira Bemis, took over his father's practice nine years ago.

Dr. J. J. Davis, outstanding botanist and curator of the University of Wisconsin herbarium, died at the University Club, Madison, on Friday, February 27.

Doctor Davis practiced medicine in Racine for many years, but retired in 1910 when he was asked to take charge of the herbarium. In 1894 he was president of the State Medical Society of Wisconsin, and in 1905 he was president of the Racine Physicians' and Business Men's Association.

Surviving are a daughter, Marguerite, of Madison; a son, Archie, of Sioux City, Iowa, and a sister, Mrs. Park Wooster, of Racine.

SOCIETY RECORDS

New Members

R. T. Shima, Turtle Lake.
E. L. Foss, Dresser Junction.
V. C. Kremser, Amery.
K. K. Ford, Amery.
J. M. Conway, Spring Valley.
F. M. Schmidt, Eagle.
T. L. Hartridge, Oconomowoc.
L. H. Kingsbury, Statesan.
J. C. Baker, Hawkins.
L. F. Gulbrandsen, Viroqua.
Ray Piaskoski, 720 No. Jefferson St., Milwaukee.
John P. Schelble, 3521 No. Teutonia Ave., Milwaukee.
Arthur Bussey, Two Rivers.
Robert Strand, Eau Claire.

Reinstated Members

R. F. Teschan, 231 W. Wis. Ave., Milwaukee.
W. H. McGuire, Janesville.

Changes in Address

S. K. Pollack, Wauwatosa, to 658 Bankers' Bldg., Milwaukee.
R. J. Dietz, Milwaukee, to Waterford.
H. D. Lapp, Janesville, to 135 No. 6th St., Reading, Pa.

Governor Appoints Planning Council for Venereal Disease Program

A PLANNING Council for inauguration of further steps in the venereal disease program was appointed by Governor Philip F. La Follette the last week in March. Following the meeting in the executive office, the Governor announced the composition of the council as: Dr. W. F. Lorenz, Madison, chairman; J. G. Crownhart, secretary of the State Medical Society, secretary; Dr. C. A. Harper, state health officer; Dr. H. M. Guilford, Bureau of Communicable Diseases, State Board of Health; and all members of the special committee of venereal diseases of the State Medical Society consisting of: Dr. J. C. Sargent, Milwaukee, president-elect of the State Medical Society; Dr. E. L. Tharinger, Milwaukee; Dr. W. J. McKillip, Milwaukee; Dr. Gunnar Gundersen, La Crosse; and Dr. C. W. Giesen, Superior.

The Planning Council will function through frequent meetings, and its work will be to coordinate the forces and advise the Governor with respect to developments, participation by State forces, and legislation. While the immediate end of the Council looks to the subject of syphilis, all phases of the venereal disease program will be handled in the council's planning.

At the initial meeting with the Governor, it was pointed out that surveys by the United States Public Health Service indicated that Wisconsin was one of the first states in the Nation in the control of syphilis.

Cancer Campaign of Women's Field Army Given Direction and Assistance by State Society

THE activities of several hundred women in Wisconsin, enlisted in the cancer campaign of the Women's Field Army of the American Society for the Control of Cancer, are now being completed at the end of the first fund-raising enlistment drive. From the inception of the organization the activities of the Women's Field Army, under the direction of Mrs. F. H. Clausen of Horicon, have been planned and executed with the aid of the Committee on Cancer of the State Medical Society, of which committee Dr. W. D. Stovall is chairman.

Realizing that an effective enlistment drive in Wisconsin would not go forward without the cooperation of physicians throughout the State, the Cancer Committee devoted all facilities of the offices of the State Society in securing speakers, furnishing of addresses, and providing lanterns and film strips and clerical and secretarial services.

During the four weeks preceding the opening of the enlistment drive on March 21, hundreds of window posters, thousands of receipt books,—membership certificates, and buttons for the use of enlistment officers, and thousands of pieces of cancer literature were mailed from the joint offices of the State Society and Women's Field Army.

Of the funds raised 30 per cent will be remitted to the national headquarters and 70 per cent will stay within the State to carry forward the well-thought-out and planned program of cancer education. Funds for lay education in Wisconsin will be dispensed under the joint direction of the Field Army and the Cancer Committee of the State Society.

Council on Scientific Work Organized

THE newly created Council on Scientific Work of the State Medical Society announced, this month, the completion of its organization effort and the formation of two subcommittees to carry forward for the year. The Council supersedes the old program committee and is made up of five members serving rotating terms of five years each. It is charged with the duty of preparing annual meeting programs that will integrate the programs of successive years and with furthering postgraduate effort throughout the State.

Dr. W. S. Middleton, dean of the Medical School and chairman of the Council, will head the subcommittee for the organization of educational facilities in a constructive plan of postgraduate training throughout the State. Dr. George W. Krahn, Oconto Falls, and Dr. H. A. Sincock, Superior, will collaborate with Doctor Middleton in this effort.

Dr. James A. Evans, La Crosse, and Dr. Eben J. Carey, dean of Marquette University School of Medicine, Milwaukee, will serve on the subcommittee responsible for the State meeting at Milwaukee on September 14 to 17. Doctor Evans is in direct charge of the scientific program while Doctor Carey will supervise the exhibits. Further announcements concerning the working efforts of the Council on Scientific Work will be carried in subsequent issues of the Journal.

New Postgraduate Course, Obstetrics and Pediatrics for Southern Wisconsin

CONTINUING postgraduate courses in pediatrics and obstetrics inaugurated for northern and central Wisconsin last year, the Bureau of Maternal and Child Health of the State Board of Health has announced the resumption of these refresher courses, the first of which will begin on April 12. The postgraduate courses will be held one afternoon and evening each week and will center in Janesville, Racine, Waukesha, Sheboygan and Beaver Dam. Dr. John W. Harris, professor of obstetrics, and Dr. J. E. Gonce, Jr., professor of pediatrics, of the Medical School of the University of Wisconsin, will conduct the new course. Each session begins at 4:30 p. m. and after a short dinner recess resumes at 7:00 p. m. The refresher courses are on the same day each week in a given town, and the first three meetings are devoted to obstetrics with the last three devoted to pediatrics. The meeting places of the new courses follow:

Meeting Places

Listed below each town are the counties for which that center is chosen. It is hoped that the doctors in the counties listed will follow this schedule, in as far as possible, so as to equalize the attendance.

Janesville

----Staff Room, Nurses' Home, Mercy Hospital
Mondays, April 12, 19, 26, May 3, 10, 17.
Dane, Green and Rock Counties.

Racine -------Elks' Club (Telephone—Prospect 252)

Tuesdays, April 13, 20, 27, May 4, 11, 18.
Kenosha, Racine and Walworth Counties.

Waukesha ----------Avalon Hotel

Wednesdays, April 14, 21, 28, May 5, 12, 19.
Jefferson, Washington, Waukesha, and rural Milwaukee Counties.

Sheboygan

Sheboygan Association of Commerce, Lounge Room, National Security Building (Telephone: Sheboygan 4110).

Thursdays, April 15, 22, 29, May 6, 13, 20.
Calumet, Manitowoc, Ozaukee and Sheboygan Counties.

Beaver Dam, Fridays, April 16, 23, 30, Hotel Rogers
Fridays, May 7, 14, 21—Lutheran Deaconess Hospital (meeting will be held in staff room in *new edition* of hospital).

Columbia, Dodge, Green Lake, Marquette and Waushara Counties.

National Tuberculosis Association Meets at Milwaukee, May 31—June 3

EVERY angle of the control of tuberculosis from pure research on the germ of the disease to a report of the results of collapse therapy on 2,500 cases of pulmonary tuberculosis and the psychotherapy of rehabilitation of patients in tuberculosis hospitals will be discussed at the 33rd annual meeting of the National Tuberculosis Association in Milwaukee, May 31 – June 3. The American Sanatorium Association and the National Conference of Tuberculosis Secretaries will meet at the same time.

The final program will be published in the May issue of the JOURNAL. There will be an x-ray exhibit in connection with the sessions which will be on display throughout the time of the entire meeting. An x-ray conference will be held on Wednesday night at which time any physician may present unusual films for interpretation and discussion. In both instances each film should be accompanied by a complete case history. Further details may be had by communicating with Dr. Oscar Lotz, Wisconsin Anti-Tuberculosis Association, Milwaukee.

TENTATIVE PROGRAM

Monday, May 31

8:00 a. m. Breakfast, Committees on Qualifications and Nominations
Private Dining Rooms D and E, 5th floor, Hotel Schroeder.

9:30 a. m. American Sanatorium Association ----------Plankinton Hall
Child Health Education Round Table ----------Engelmann Hall

12:30 p. m. Luncheon and Business Meeting, National Conference Tuberculosis Secretaries ---Grand Ballroom, Hotel Schroeder

2:30 p. m. Christmas Seal Round Table ---Grand Ballroom, Hotel Schroeder

3:00 p. m. American Sanatorium Association ----------Plankinton Hall

4:30 p. m. National Tuberculosis Association Board Meeting---Committee Room D

8:15 p. m. Opening General Meeting ----------Plankinton Hall

Tuesday, June 1

9:30 a. m. Pathological Section---Plankinton Hall
Administrative Section ----------Engelmann Hall

12:30 p. m. Luncheon ----------

2:00 p. m. Clinical Section-------Plankinton Hall
Social Work Section ----------Engelmann Hall

6:00 p. m. U. S. Veterans Bureau Dinner ----------Soldiers' Home

9:00 p. m. Frolic ----------Hotel Schroeder Grand Ballroom

Wednesday, June 2

9:30 a. m. Clinical Section-------Plankinton Hall
Social Work Section-Engelmann Hall

12:30 p. m. Luncheon, Tuberculosis Committee, American Student Health Association ----------Schroeder Hotel

2:00 p. m. Pathological Section---Plankinton Hall
Administrative Section ----------Engelmann Hall

4:00 p. m. National Tuberculosis Association Board Meeting---Committee Room D

8:00 p. m. X-Ray Conference-----Plankinton Hall

Thursday, June 3

9:30 a. m. Joint Symposium------Plankinton Hall
12:00 M. General Meeting------Plankinton Hall

Midwest Conference on Occupational Diseases

THE Midwest Conference on Occupational Diseases and the American Association of Industrial Physicians and Surgeons will hold a joint program at Hotel Statler, Detroit, May 3 to 7. Dr. Carey P. McCord, co-chairman of the conference, will furnish programs to those interested. He may be addressed to 1151 Taylor Avenue, Detroit, Michigan.

Medical Education in Milwaukee, 1848-1893

By G. KASTEN TALLMADGE, M. D.
Department of Anatomy, Marquette University School of Medicine, Milwaukee

Wisconsin Medical College

THE history of medical education in the city of Milwaukee has its beginning in the year 1848. This was the year when Wisconsin was admitted to statehood. One of the last acts of the legislative assembly of the territory of Wisconsin (which adjourned permanently on the thirteenth of March) was one which constituted thirteen designated citizens of Milwaukee "a body politic and corporate to be styled and known by the name of the 'Wisconsin Medical College,' and by that name and style to remain and have perpetual succession." The act specified that the college should be located in or near the city of Milwaukee; that the number of its trustees should not exceed thirteen, exclusive of the president of the college, who should be a member of the board of trustees; and that the real and personal property of the college "should at no time exceed the value of $200,000." The act stated, "The object of this incorporation shall be to promote the general interests of medical education and to qualify young men to engage usefully and honorably in the practice of medicine and surgery." The act, in accordance with its own provision, named thirteen trustees, viz., Eliphalet Cramer, Edward D. Holton, George H. Walker, Daniel Wells, Jr., Alanson Sweet, James Bonnell, Joseph Cary, Edward A. Guilbert, A. Finch, Jr., H. Bosworth, Homer Marsh Hard, William A. Prentiss, and Sidney L. Rood.

This act was approved by the governor of the territory, Henry Dodge, on March 2, 1848. Legislative records of the State of Wisconsin made earlier than about 1910 do not contain the roster of appearances for and against a bill, so probably there is no way to discover who proposed and favored the act. Walker, Guilbert, and Hard seem to have been the only members of the board of trustees who were physicians; Hard practiced in Milwaukee and with Guilbert established a "Sydenham Infirmary" which, however, apparently was not successful, for Hard left Milwaukee in 1849 and was not heard of again. He was deprived by his colleagues of membership in the Milwaukee Medical Association because he advertised his infirmary. In this year the membership of the association was nineteen, but "this number was lessened by the expulsion early in the year of Dr. Hard for an improper newspaper advertisement and subsequently of Dr. Smith for consultation with the expelled member; this card of Dr. Hard's is a somewhat peculiar introduction for a doctor who had the small rooms in the second story of a wooden shanty-like building on East Water Street for his office, and I will copy it for your amusement:

> **Sydenham Infirmary, Milwaukee, Wis.**
>
> This institution established by Drs. H. M. Hard & E. A. Guilbert is now ready for the reception of patients: The Infirmary is established for the treatment of Medical and Surgical Diseases in all their varieties and combinations, possessing, in fact, all the Medical and Surgical Advantages of a well conducted Hospital: It is proposed to erect, as soon as pending arrangements can be completed, a commodious Hospital Building, which will be furnished with all those comforts and conveniences usually to be found in such Institutions: There is, within the Infirmary, an Ophthalmic department, in which the diseases of that delicate and important organ, the eye, will receive our special attentions: Particular care will be bestowed upon Orthopoedic Surgery, for the cure of deformities, as Club foot, Harelip, Strabismus and other deformities, be they natural, or the sequel of injuries: The Infirmary, at present, is located in our lecture room which is adjacent to our medical office, corner of Michigan and E. Water Str: Particular attention will be paid to Hospital and Clinical practice on Tuesdays and Saturdays of each week, yet the Infirmary is open to patients at all times: Pa-

---

* N. B: This paper constitutes the introductory chapter of a volume in preparation, *History of Marquette University School of Medicine*, which includes also a complete, documented account of the Wisconsin College of Physicians and Surgeons and of the Milwaukee Medical College. Copyright 1937 by G. Kasten Tallmadge; all rights reserved.

tients from a distance, who may find it necessary to remain in the city for a short time, can obtain board within a few doors of the Infirmary at $1.50 to $2.00 per week:

N. B.: On Tuesdays and Saturdays of each week, all indigent persons who may present themselves will receive advice and medicine gratis.

H. Marsh Hard, M. D.
Edward A. Guilbert, M. D.[1]

In those days this kind of advertising was not uncommon, and one may wonder whether the Milwaukee Medical Association was not somewhat severe in its treatment of Hard, who was important enough to be named among Cramer, Wells, Holton, and other trustees by the territorial legislature. Another newspaper, about the same time, carried the following notice:

Funkville Infirmary

This Institution lately opened under the most favorable auspices, is now ready for the reception of patients of every description, Medical, Surgical and Obstetric: Every species of disease will be treated in the most skilful manner possible, as might be expected from the vast amount of Medical knowledge possessed by Dr. Funk, who in addition to extraordinary medical attainments acquired by great study and much travel, has the rare qualification of being a seventh son of a seventh son, which renders him admirably adapted to the treatment of nervous diseases: In short, he is "death on fits": Diseases of the Eyes and Feet will receive particular attention: Deformities of these organs, such as Strabismus and Clubfoot, will be relieved by a single application of Dr. Funk's truly celebrated antitwistical plaster, which was procured at great expense from the head Surgeon of the King of the Congo Islands: Dr. Funk will lecture every Friday evening, on the gases and, he flatters himself that he will entertain his audience, having, it is well known, received the great leather medal for the best dissertation upon that subject, from the Universal Gas Society: A copy of this wonderful production will be read the first Friday of every month in his lecture room "which is adjacent to his office."

Peter Funk, M. D., A. S.,
PL. S. F. T. & H. M. U. G. S.[1]

Ezekiel Funk, Superintendent,
Rachel Funk, Matron.

No further records of the Wisconsin Medical College have been found; it seems never to have come into actual existence.

University of Wisconsin

The act of legislature approved by Governor Nelson Dewey on July 26, 1848, establishing the University of Wisconsin at Madison, provided in section eight that the university should consist of four departments, "First, the department of science, literature and the arts; second, the department of law; third, the department of medicine; fourth, the department of the theory and practice of elementary instruction." At a meeting of the Medical Society of the State of Wisconsin (founded in 1841) held at Madison, January 16, 1850, Alfred L. Castleman, a physician of Milwaukee, was appointed to confer with the regents of the University of Wisconsin, who then were in session, on the question of organizing the department of medicine provided for in the act of July 26, 1848. Castleman must have acted with alacrity and success, for at the society's afternoon session, "On motion, Drs. A. L. Castleman, Erastus B. Wolcott, and James P. Whitney were made a committee to take into consideration the suggestions of Chancellor Lathrop in relation to the organization of the medical department of the University of Wisconsin; also all such matters connected

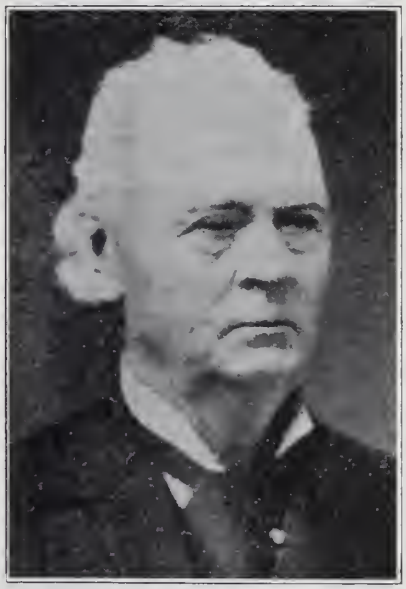
Alfred L. Castleman

with the subject of medical education as shall to them appear desirable, confer still further with the regents of the University and report their doings in writing at the next meeting." The next meeting was to have been held in Milwaukee, June 11, 1850. But in April a number of physicians in Milwaukee organized a college of medicine under the charter of the University of Wisconsin. Their

Erastus B. Wolcott

president was Wolcott; their secretary, A. D. Smith; and their treasurer, Eliphalet Cramer. The faculty consisted of three members: Wolcott, professor of surgery; Whitney, professor of the institutes of medicine; and Smith, professor of medical jurisprudence. Now this was in April, 1850, and two of these men, Wolcott and Whitney, were members of the committee appointed by the State Society to confer with the regents of the University. It appears that Wolcott and Whitney were not neglecting their own interests if there were to be a department of medicine connected with the University of Wisconsin. When the Society met again, in Milwaukee, on June 11, 1850, Castleman was present and reported that the committee was making progress but requested an extension of time. The extension was granted. And nothing more is known of this venture excepting a brief passage in the *Transactions* of the Socie.y, its epitaph: "The conference resulted in reporting against the immediate organization of said Department." Castleman is known to have turned to homeopathy.

This Wolcott was he who performed the first recorded nephrectomy upon a human being. The patient, whose name has been lost, was thought to have a cystic tumor of the liver, and its removal was judged to afford him his only chance of possible recovery. The operation was performed on June 4, 1861, at East Troy, Wisconsin, by Wolcott assisted by Charles L. Stoddard, who was then twenty-five years old, and whose patient this was. Chloroform was used, and a diagonal incision was made in the right hypochondriac region. A mass weighing about two and a half pounds was removed, and the wound was closed. Inspection of the mass showed it to be the right kidney,

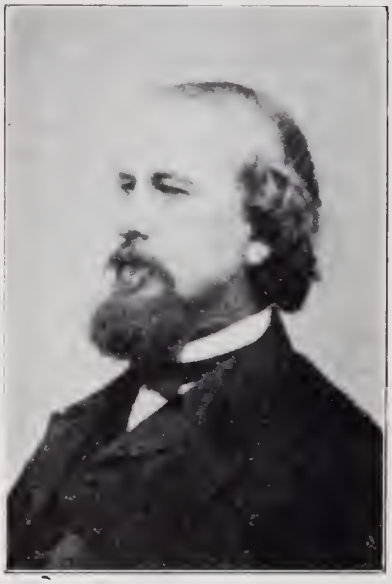


James Johnson

some portions of which still showed normal structure. The patient died from peritonitis on the fifteenth day after the operation.[2]

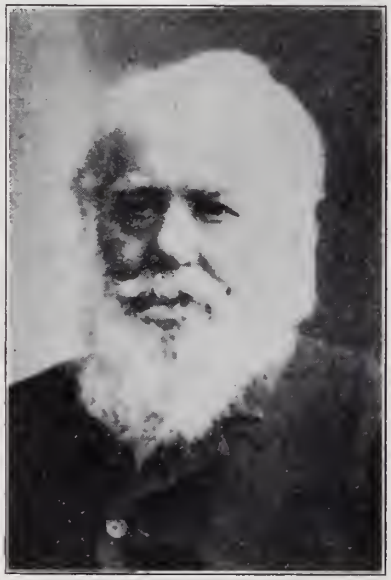
In June, 1868, a special meeting of the Milwaukee City Medical Association was called in order to discuss the "feasability [*sic*] and practicability of a Medical College in Milwaukee." The members of the associ-

ation appointed James Johnson, the first president of the board of health of the city, chairman of a committee to confer with



John E. Garner

Edward Salomon, one of the regents of the University of Wisconsin. The other members of the committee were Wolcott, John E.



Hermann Naumann

Garner, Herman Naumann, and Solon Marks. The committee proposed to found in Milwaukee the department of medicine of the University; the University at Madison was to confer the degrees. The conference between Salomon and the committee was held on June 20, and after nearly six months of investigation by the committee, Johnson, on January 7, 1869, reported, "In view of the pecuniary assistance likely to be required from all sources, as well as many other considerations, the committee has decided that any present action would be premature."[1] This was another epitaph.

The First Wisconsin College of Physicians and Surgeons

An opportunity to become a professor or possibly even dean of the school of medicine of the University of Wisconsin, however, was

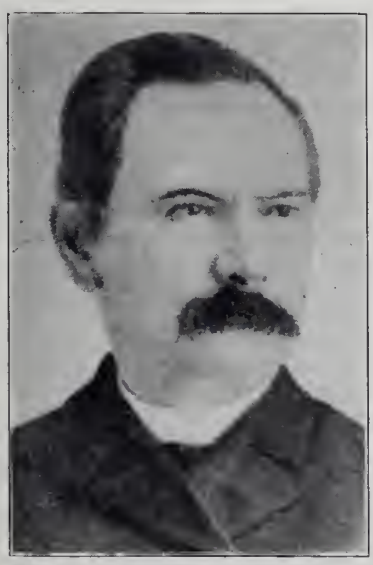
Solon Marks

no opportunity to be overlooked by men who had such aspirations. And Solon Marks and Nicholas Senn, at least, did have such aspirations. Marks had been censured by the Milwaukee Medical Association, of which he was a member, in 1871, for giving to the newspapers a self-laudatory report of the manner in which he had treated a patient who had been injured in an accident, and he had to apologize publicly in order to regain his standing with the association. And Senn "was not the least modest as to his abilities and did not hesitate to proclaim himself an

authority." No one thought of challenging the high estimation in which he held himself, for it seems that his temper was rather fiery.

Nicholas Senn

He had hired ten women to come each day to ring the large, loud bell on his door and visit him for a time as if they were his patients.



Alois Graettinger

For these services he paid them each a dollar a day.[3] And so, on February 10, 1877, there was incorporated in the city of Milwaukee, with a capital stock issue of $50,000, the first Wisconsin College of Physicians and Surgeons. It was stated specifically in the articles of association, however, that this corporation could begin business when only ten thousand dollars' worth of stock had been sold. The articles of association show that stock had been sold as follows:

Solon Marks	$2000
Nicholas Senn	2000
A. Graettinger	2000
J. H. Thompson	2000
Edwin W. Bartlett	2000
Isaac H. Stearns	500
E. M. Rosenkrans	500
James Dorland	1000
W. D. Ross	1000

James Thompson

On March 31 the articles of association for incorporation were amended:

> Article 15: This association may become a branch or department of the "University of the State of Wisconsin" by a vote of at least two thirds of the Trustees of said College under such rules and by-laws as may be mutually agreed upon and adopted by said Trustees and the Regents of said University.

The available records yield nothing more, not even an epitaph.

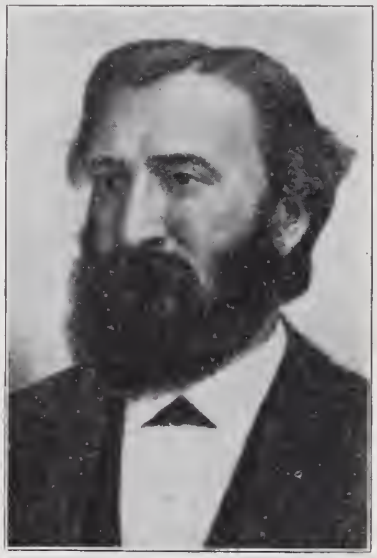
"Coney Medical Institute"

On April 13, 1881, the following articles of association were filed with the secretary of state:

> We, Charles O. Jenison, William H. Coney, and James Dishington—do hereby associate for

the purpose of forming a corporation under the Revised Statutes of the State of Wisconsin for the establishment, maintenance and use of a College for giving instruction in the several branches of medical science as ordinarily taught in the medical schools throughout the country namely: Anatomy, Physiology, Chemistry, Materia Medica, Therapeutics, and the Practice of Medicine, Surgery and Obstetrics.

The name of such corporation shall be *The Milwaukee College of Physicians and Surgeons* and shall be located at the City of Milwaukee, in the county of Milwaukee, Wisconsin.



Edwin W. Bartlett

This college was known familiarly as the Coney Medical Institute, in honor, no doubt, of its principal founder. The corporation was organized "not for profit," and therefore filed no official annual reports. Jenison was graduated from the Bennett College of Eclectic Medicine and Surgery, Chicago, in 1877. Dishington seems never to have been graduated; he appeared in Milwaukee in 1880 and departed in the following year for an unnamed destination. Nothing was heard of him afterward. Coney was known to have been in Milwaukee in 1880, "employed as a coal heaver at the gasworks—a small, insignificant-appearing man—dressed in a suit of overalls, face and hands blackened and begrimmed."[4] He left this employment and, "going to Chicago, remained there a few weeks, and returned to Milwaukee, opening up his institution 'for the benefit of mankind.' "[5] The institution was "some sort of a hot bath concern" housed in a two-storied brick building of dingy brown, on North Third Street, between West Wisconsin Avenue and West Wells Street. In April, 1881, this emporium officially became the Milwaukee College of Physicians and Surgeons. Dishington and Jenison seem to have had little to do with it. The "college" published annual announcements containing a long list of names claimed to be a faculty. The third annual announcement, that for the session of 1883–84, for example, carried the following:

President, Albert F. Stade, LL. D., Secretary, A. F. Kessel, M. D.; Dean, W. H. Coney, M. D.; Treasurer, B. L. Bull, M. D.

Board of Directors

W. H. Coney, M. D.; B. L. Bull, M. D.; Albert F. Stade, LL. D.; A. F. Kessel, M. D.; S. F. Fowler, M. D.

Board of Examiners

W. H. Coney, M. D.; B. L. Bull, M. D.; L. Slominsky, M. D.; A. F. Kessel, M. D.; M. Sorenson, M. D.; S. F. Fowler, M. D.; G. F. Lewis, M. D.; G. McKay, M. D.; W. Lockwood, M. D.; M. H. Palmer, M. D.; G. Murray, M. D.; V. W. Richardson, M. D.

Faculty

M. Sorenson, M. D., Professor of Obstetrics and Diseases of Women and Children.

B. L. Bull, M. D., Professor of Materia Medica and Therapeutics and Clinical Lecturer in Diseases of the Heart, Throat, and Lungs.

S. F. Fowler, M. D., Professor of the Principles and Practice of Medicine and Clinical Lecturer in Venereal and Skin Diseases.

L. Slominsky, M. D., Professor of Anatomy and the Pathology of the Nervous System.

W. H. Conty, [error for Coney?] M. D., Professor of Surgery.

A. F. Kessell, M. D., Professor of Physiology.

V. W. Richardson, M. D., Professor of Chemistry and Toxicology.

A. F. Stade, M. D., LL. D., Lecturer in Medical Jurisprudence.

G. McKay, M. D., Lecturer in Diseases of the Eye and Ear.

Dr. Bevier, M. D., Professor of Dental Surgery.

During the publicity attending the final dissolution of the "Institute," Bevier stated publicly that his name had been used without his permission. Some of the other names in these lists seem to have been fictitious. An

PROTAMINE, ZINC & ILETIN (INSULIN, LILLY)

PROTAMINE ZINC INSULIN

LILLY

● Protamine Zinc Insulin represents a step forward in the management of diabetes and in many cases offers definite advantages over unmodified Insulin in treating the diabetic.

Protamine, Zinc & Iletin (Insulin, Lilly) has been developed as a result of co-operation with Dr. H. C. Hagedorn and his associates of Copenhagen, Denmark, and the University of Toronto.

Eli Lilly and Company markets this product in packages containing one 10-cc. vial. After careful shaking, each cubic centimeter contains 40 units of Iletin (Insulin, Lilly) together with protamine and approximately 0.08 mg. of zinc.

Literature will be forwarded to physicians upon request.

ELI LILLY AND COMPANY

INDIANAPOLIS, INDIANA, U. S. A.

examination of Frank's directory of physicians of Milwaukee from 1834 to 1914 (based upon the Milwaukee City Directories and the American Medical Directories) shows that Coney never attended a school of medicine. The names of Stade, Kessel, Bull, Sorenson, Lewis, McKay, Lockwood, Palmer, Murray, and Richardson do not occur. Fowler, an

Robert Martin

eclectic, was the student of his father, a botanic physician of Utica, New York, about 1840. There is no record of Slominsky's ever having been graduated in medicine. At any rate, the chairs which the "faculty" occupied were fictitious, for Coney never had a college nor any of the equipment necessary to operate a school of medicine. Yet a man could make himself a Doctor of Medicine in ten hours here: "Walking in at 7 o'clock, the applicant could hear the lectures, make his studies, pass an examination, and leave the institution in the evening a regular practitioner, with diploma, certificate, and all the necessary appurtenances."[4]

Coney boasted boldly of the large number of "doctors" which he had graduated, but he refused to publish a list of their names. He sold diplomas from time to time, and frequently was under the suspicion of the Milwaukee Department of Health. Health Commissioner Robert Martin definitely began to take steps against Coney about the first of June, 1883, when it was reported that a diploma bearing only Coney's signature had been sold to one Zapp, a dentist. About September 14, Martin, acting presumably under the authority of Attorney General Frisby, accompanied by Nicholas Senn, John W. Fisher, James Dorland, and Solon Marks, visited the "college" in order to investigate it. Coney waited upon Martin to learn the outcome of the investigation, and when he was informed of the nature of the report of the examiners he closed his establishment voluntarily.* During the three years' existence of the Milwaukee College of Physicians and Surgeons, Coney had made a fortune and could retire. He disappeared late in 1883, and was not heard of again.

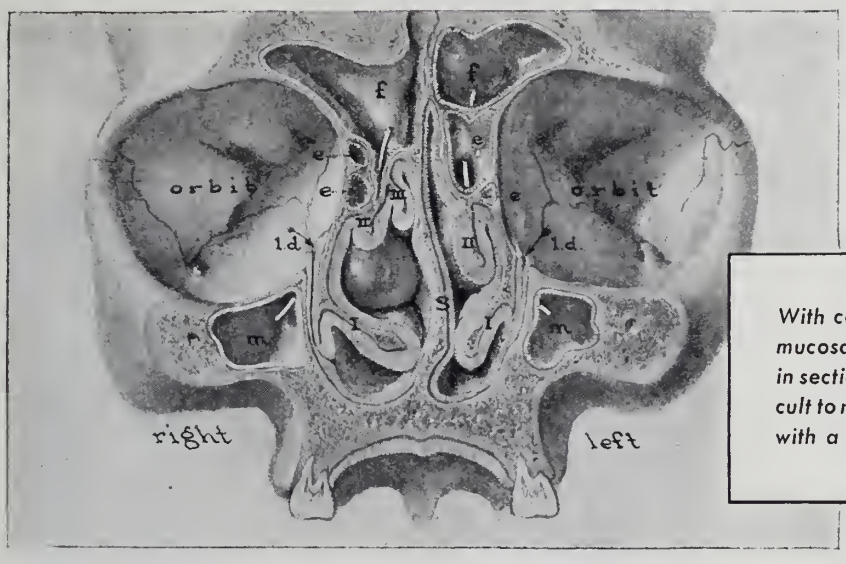
Alden B. Farnham

Milwaukee University

A similar establishment, though far less pretentious than Coney's, was incorporated by Samuel Shorer, Theodore Walther, and Oscar Ebert, on February 29, 1896, under the name of the Milwaukee University. Diplo-

* This fact, like several others embodied in this work, is contrary to the statements of every so-called authority which has been consulted, but it is a fact nevertheless, verified by the records of the secretary of state and the attorney general of Wisconsin.

IN SINUSITIS



With congestion of the nasal mucosa as here represented in section, it is obviously difficult to reach all affected areas with a liquid vasoconstrictor.

In sinusitis 'Benzedrine Inhaler' is especially useful. The structure of the rhinological tract is so complicated that, when congestion is present, the whole of the affected area cannot easily be reached by a liquid vasoconstrictor.

The vapor from 'Benzedrine Inhaler,' diffusing through the nasal cavity, reaches and relieves congestion. Thus it not only affords improved respiratory ventilation, but also helps to re-establish drainage of the accessory sinuses—an important factor in preventing acute attacks from becoming chronic.

Prompt and effective relief . . . ease and convenience of application . . . these go far toward insuring the comfort and co-operation of your patients between office treatments.

Each tube is packed with benzyl methyl carbinamine, .325 gm.; oil of lavender, .097 gm.; menthol, .032 gm.

'Benzedrine' is the trade mark for S. K. F.'s nasal inhaler and for their brand of the substance whose descriptive name is benzyl methyl carbinamine.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

BENZEDRINE INHALER

A Volatile Vasoconstrictor

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA. EST. 1841

mas were sold for two hundred dollars. On September 2, 1896, Attorney General Mylrea brought charges of fraudulence against the "University." No one appeared for the defense, and the court dissolved the corporation on November 14.[6]

"School of Anatomy and Surgery"

The *Medical News,* in 1885, stated, "In view of the fact that large numbers of students of medicine yearly pass through Milwaukee on their way to enter the metropolitan medical schools and that the majority of them begin their collegiate courses without adequate knowledge of the primary branches of medicine and surgery, and that in the colleges the fundamental principles of the science of medicine are almost without exception too little taught, a number of representative medical men of Milwaukee called a meeting at the residence of Dr. N. Senn to discuss the situation. They decided to found in Milwaukee a school of Medicine and Surgery, in which the primary branches only of these sciences should be taught." The result of this decision was that on November 8, 1884, Horace Manchester Brown (the name Manchester was commonly altered to Manslaughter, even by his friends, more as an acknowledgment of this man's spirited disposition than as an aspersion upon his ability, which was truly exceptional), A. Bradford Farnham, and James Dorland filed with the secretary of state articles of association for the incorporation of "The Milwaukee School of Anatomy and Surgery."

William Fox

John P. Bading

The object of this school was stated to be not to issue diplomas, but only to furnish to students of medicine the best possible facilities to acquire a thorough knowledge of the primary branches of medicine and surgery. Upon the successful completion of the course a license to practice medicine was to have been issued to the student. Senn was elected president of the organization; Brown, its secretary; and William Mackie, its treasurer. The directors were Senn, Brown, William Fox, Dorland, and Farnham. The faculty was constituted as follows:

Nicholas Senn, M. D., Lecturer in Surgery.
William Mackie, M. D., Lecturer in Surgical Anatomy.
Horace Manchester Brown, M. D., Lecturer in Descriptive Anatomy.
James Dorland, M. D., Lecturer in the Principles of Medicine.
Robert Herdegen, M. D., Lecturer in Obstetrics.
William Fox, M. D., Lecturer in Gynecology.
Alden B. Farnham, M. D., Lecturer in Chemistry.
John Bading, M. D., Lecturer in Physiology.
Henry V. Ogden, M. D., Lecturer in Materia Medica.

One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in the *Saturday Evening Post* and other leading magazines.

"I never want to go to another party!"

"BUT, dear, tell Mother—what *is* the matter?"

"They wouldn't let me play with them. They let me be by myself all the time. They—they *laughed* at me."

What should Mother do? Denounce the other children as ill-raised little barbarians? Prevent further contact with the youngsters who should be the child's playmates, and the neighborhood that should be her happy little world?

Those would be natural and understandable reactions for any mother. But unfortunately, they would tend only to make matters worse.

When a child is "different" or "difficult," the most sensible thing to do is to get the help of your doctor. And the reason is that the underlying cause, while occasionally psychological, is usually *physical*.

For instance, a child can be slow and awkward at childhood games, because anemia is robbing her of energy. A child can appear backward because a glandular disorder is causing sluggishness, because faulty hearing prevents her from catching questions, or because faulty eyesight prevents her from reading correctly. A child can be sulky or ill-tempered, not because it is her nature to be so, but because some physical derangement is *making* her act that way.

The tragedies these disorders heap upon little heads are very real tragedies. But even more serious is their possible influence on the child's future. The "laughed-at" child so often becomes the crushed and morose adolescent. And the morose adolescent frequently becomes an embittered man or woman in an unfriendly world.

If your child's present and future happiness is being threatened, see your doctor. You will find him a helpful and understanding friend.

PARKE, DAVIS & COMPANY
DETROIT, MICHIGAN

The World's Largest Makers of Pharmaceutical and Biological Products

Rooms were secured where classes could be held, and a course of lectures and demonstrations was planned, to have been commenced about March 1, 1885, and to have continued to June 1. But a mere handful of prospective students appeared, and only the paltriest financial support was found available, so the attempt was given up before it really had been begun.

The history of this project was repeated almost to a detail in 1891. The secretary's minutes of two meetings have been preserved:

> A meeting was called at Dr. Frank's office Monday evening, Dec. 21st, 1891, to consider the formation of a medical college. The following gentlemen were present: Doctors Frank, Puls, Mackie, Washburn, Tower, Wurdemann, Levings, Wingate, Ladd, Bradley, Boorse, Southwell, and Burgess. The latter called the meeting to order and asked for nominations for temporary Chairman. Dr. Ladd was elected and took the chair.

William Mackie

> Dr. Burgess stated the objects of the meeting and moved that we proceed to the establishment of a medical college. Motion seconded and the question opened for discussion. Every man present spoke on the question and expressed himself favorable to the enterprise.
>
> Dr. Washburn moved that the question be laid on the table until the next meeting. Carried.
>
> Dr. Washburn moved that Chair appoint a committee of five to secure money for the establishment of a medical college. Carried. The Chair appointed Drs. Frank, Puls, Wurdemann, Levings, and Burgess.
>
> Dr. Puls moved that Chair appoint a committee of three with Dr. Wingate as Chairman to

George D. Ladd

> see about establishing a dispensary. Carried. Chair appointed Drs. Wingate, Washburn, and Boorse. Dr. Wingate moved appointment of a

U. O. B. Wingate

> committee of three with Dr. Mackie as Chairman to see what facilities can be obtained in the hospitals. Carried. Chair appointed Drs. Mackie, Wurdemann, and Bradley.

THEY LOOK ALIKE...

but there's a Big Difference

One bulb has high quality. It will give long and economical service. The other, foreign-made for bargain counters, will waste current and probably fizzle out after a few hours of use. Yet, because these bulbs look so much alike, the average purchaser can't tell which is which.

The difference between a fully-potent vitamin product and a deficient one can't be told by appearance, either . . . nor by taste, weight or smell. And because deficient vitamin products are known to be sold, the careful physician writes his prescriptions and specifies the product of a responsible manufacturer—one having both the technical skill and the elaborate equipment that is so necessary in establishing quality and potency.

Abbott's Haliver Oil with Viosterol is such a product. Abbott maintains complete control from the time the halibut are caught until the finished product is placed in your patient's hands. Rigid bio-assays assure a vitamin A and D content up to label claims and samples of lots awaiting your prescription on the druggist's shelf are bio-assayed at intervals to guarantee stability.

Abbott Laboratories • North Chicago, Illinois

ABBOTT'S HALIVER OIL

WITH VIOSTEROL

★

Abbott's Haliver Oil with Viosterol is available in soft, tasteless capsules in boxes of 25, 50, 100 and 250, and in 10-cc. and 50-cc. vials with special droppers.

Dr. Levings moved to adjourn to meet in Dr. Frank's office Monday eve., Jan. 11th, 1892. Carried.

A. J. BURGESS,
Secretary pro tem.

Meeting Jan. 11th, 1892

Ladd, Wingate, Levings, Tower, Puls, Frank, Washburn, Sifton, Bradley, Shimonek, Boorse, Burgess.

Committee for raising funds reported a guarantee of $3,500. Committee on dispensary reported having talked with board of charities with indefinite result. Dr. Boorse had talked with supervisors and thinks the board will abolish office of County Physician and help a dispensary.

Burgess moved addition of Levings to committee on hospitals. Carried.

Dr. Puls moved that committee on dispensary go before board of charities.

Dr. Bradley only member of committee on hospitals and reported that St. Mary's Hospital is willing to admit students to the hospital.

Burgess moved appointment of a committee of three to look up site and ascertain the cost of quarters for a medical school. Carried. Drs. Burgess, Shimonek, Bradley.

Dr. Puls moved that the question be laid over till next meeting.

Dr. Puls moved that we adjourn to meet at Dr. Frank's office, Thursday, Feb. 4th, at 5 P. M. Seconded by Dr. Washburn.

With a guarantee of only thirty-five hundred dollars, indifference from the board of charities, uncertainty from the board of supervisors, and, probably most of all, without a leader possessed of that daring which a new venture needs, the plan was carried no farther. The man who was needed was not present at the meetings; if he had appeared, the meeting probably would have disbanded, for the majority of these men, perhaps all of them, would not have entered into a venture with him. But he had been in Milwaukee nearly ten years, laying his plans deeply and well, building up independence of boards and charities and indifference, creating his own hospital, gathering his own resources, to do successfully what so many others had tried unsuccessfully so many times to accomplish. This man was William Henry Earles.

REFERENCES

1. Wingate, U. O. B.: Manuscript in possession of Mil. Acad. Med., 1896.
2. Stoddard, C. L.: Case of Encephaloid Disease of the Kidney, Removal, etc. Phila. Med. & Surg. Reporter, 7:126, 1861–62.
3. Bach, J. A: Some Things I Remember. Milw. Med. Times, 7:12–19 (December) 1934.
4. Evening Wisconsin, September 24, 1883.
5. Milwaukee Daily Journal, June 4, 1883.
6. Records of Proceedings of Circuit Court of Milwaukee County. Case No. 16200.

COLLATERAL READING

Frank, L. J.: Medical History of Milwaukee County, Milwaukee, 1914.
Miller, W. S.: Medical Education in Wisconsin. Wisconsin M. J. No. 4, 35:272 (April) 1936.
Cutter, I. S.: Landmarks in Surgical Progress. Internat. Abstr. Surg., 48:103–106 (February) 1929.

USE OF VACCINES

(Continued from page 287)

25. Bergey, D. H., and Etris, S.: Active Immunization Against Tetanus Infection with Refined Tetanus Toxoid. J. Immunol., **31**: 363-371 (Nov.) 1936.
26. Cooke, J. V.: Active Artificial Immunization in Diphtheria. J. Pediat., **9**: 641–646 (Nov.) 1936.
27. Rappaport, B.: Active Immunization to Scarlet Fever with Less Reaction. J.A.M.A., **106**: 1076–1078 (March 28) 1936.
28. McKhann, C. F., Green, A. A., Eckles, L. E., and Davies, J. A. V.: Immunological Applications of Placental Extracts; Effectiveness by Oral Administration. Ann. Int. Med., **9**: 388–397 (Oct.) 1935.
29. Henderson, D. W.: Experiments with "O" Antigen of Clostridium Oedematis Maligni (Vibrion Septique). Brit. J. Exper. Path., **15**: 166–175 (June) 1934.
Prophylaxis of Experimental V. Septique Infection and Practical Application of Antibacterial Methods. Brit. J. Exper. Path., **16**: 393–405 (Aug.) 1935.
30. Ferry, N. S., Norton, J. F., and Steele, A. H.: Studies of Properties of Bouillon Filtrates of Meningococcus; Production of Soluble Toxin. J. Immunol., **21**: 293–312 (Oct.) 1931.
31. Ferry, N. S.: Meningococcus Antitoxin; Prophylactic and Therapeutic Tests on Guinea Pigs. J. Immunol., **23**: 315–324 (Oct.) 1932.
Meningococcus Antitoxin; Therapeutic Tests on Monkeys. J. Immunol., **23**: 325–347 (Oct.) 1932.
Meningococcus Toxin and Antitoxin; Further Tests on Monkeys. J. Immunol., **26**; 133–141 (Feb.) 1934.
32. Ferry, N. S., and Schornack, P. J.: Meningococcus Toxin and Antitoxin; Further Tests on Guinea Pigs and Rabbits. J. Immunol., **26**: 143–160 (Feb.) 1934.
33. Ferry, N. S., and Steele, A. H.: Active Immunization with Meningococcus Toxin. J.A.M.A., **104**: 983–984 (March 23) 1935.
34. Hoyne, A. L.: Meningococcic Meningitis; A New Form of Therapy. J.A.M.A., **104**: 980-983 (Mar. 23) 1935.
35. Hoyne, A. L.: Intravenous Treatment of Meningococcic Meningitis with Meningococcus Antitoxin. J.A.M.A., **107**: 478-481 (Aug. 15) 1936.
36. Bannick, E. G., and Magath, T. B.: Case of Brucellosis Treated with Antiserum. Proc. Staff Meet., Mayo Clin., (Jan. 8) 1936, pg. 17.
37. Wherry, W. B., O'Neil, A. E., and Foshay, L.: Brucellosis in Man; Treatment with New Antiserum. Am. J. Trop. Med., **15**: 415–426 (July) 1935.
38. Foshay, L.: On Treatment of Tularemia. Ohio State M. J., **31**: 21–24 (Jan.) 1935.

39. Foshay, L. Tularemia Treated by New Specific Antiserum. Am. J. M. Sc., 187: 235–245 (Feb.) 1934.
Topley, W. W. C., and Wilson, G. S.: The Principles of Bacteriology and Immunity. Baltimore: Wm. Wood and Co., 1936.
Fothergill, L. D.: Some Recent Advances in Vaccines and Serums: A Review. M. Clin. North America, 19: 1409–1438 (March) 1936.
Long, P. H.: Theoretical and Practical Considerations Concerning the Use of Bacterial Vaccines. Internat. Clin., 4: 76–90 (Dec.) 1936.

BOOKS RECEIVED FOR REVIEW

The Diseases of Infants and Children. By J. P. Crozer Griffith, M. D., emeritus professor pediatrics in the University of Pennsylvania; consulting physician to the Children's Hospital, Philadelphia; and A. Graeme Mitchell, M. D., B. K. Rachford professor of pediatrics, College of Medicine, University of Cincinnati; medical director and chief of staff of the Children's Hospital of Cincinnati. Second edition, revised and reset. Philadelphia: W. B. Saunders Company, 1937. Cloth, $10.00 net.

Operative Surgery. By J. Shelton Horsley, M. D., attending surgeon, St. Elizabeth's Hospital, Richmond, Virginia; and Isaac A. Bigger, M. D., professor of surgery, Medical College of Virginia, surgeon in chief, Medical College of Virginia Hospitals, Richmond, Virginia. Volume I. Fourth edition. St. Louis: The C. V. Mosby Company, 1937. Price $15.00.

The 1936 Year Book of Obstetrics and Gynecology. Edited by J. B. DeLee, M. D., professor of obstetrics, University of Chicago Medical School; chief of obstetrics, Chicago Lying-In Hospital and Dispensary; and J. P. Greenhill, M. D., professor of gynecology, Loyola University Medical School; professor of gynecology, Cook County Graduate School of Medicine. Chicago: The Year Book Publishers. Price $2.50.

Preoperative and Postoperative Treatment. By Robert L. Mason, M. D., assistant in surgery at the Massachusetts General Hospital. Philadelphia: W. B. Saunders Company, 1937. Cloth, $6.00 net.

Ophthalmoscopy, Retinoscopy and Refraction. With New Chapter on Orthoptics. By W. A. Fisher, M. D., professor of ophthalmology, Chicago Eye, Ear, Nose and Throat College. Fourth edition revised. Chicago: H. G. Adair Printing Co., 1937. Price $2.00.

Senile Cataract. Methods of Operating. By W. A. Fisher, M. D., professor of ophthalmology, Chicago Eye, Ear, Nose and Throat College; with chapters by other authors. Third revised edition. Chicago: H. G. Adair Printing Co., 1937.

Operative Surgery. By J. Shelton Horsley, M. D., attending surgeon, St. Elizabeth's Hospital, Richmond, Virginia; and Isaac A. Bigger, M. D., professor of surgery, Medical College of Virginia, surgeon in chief, Medical College of Virginia Hospitals, Richmond, Virginia. Volume II. Fourth edition. Price $15.00.

ATTENTION!

Preinventory Special!

The following high-grade Physician's office Scales are offered at a very special price subject to prior sale.

5 Mahogany finish continental Scales, 4 White Detecto Medic Scales.

Regular $35 Value While They Last $30

ROEMER DRUG COMPANY
606 N. Broadway
Milwaukee, Wis.

Behind
MERCUROCHROME
(dibrom-oxymercuri-fluorescein-sodium)
HW&D *is a background of*

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

ACCEPTED AMERICAN MEDICAL ASSN.

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.
BALTIMORE, MARYLAND

VITAMIN REQUIREMENTS OF MAN

II. VITAMIN D

● The quantity of vitamin D required by an individual is influenced by such factors as environment, race, age, mineral content of the diet, and possibly by the source of the vitamin. Deficiency is manifest in children as rickets and decreased calcium retention, and in adults by the less well defined condition known as osteomalacia.

The minimum daily intake which will prevent rickets in infants is probably between 135 and 400 International units of vitamin D as supplied by cod liver oil (1). The optimum prophylactic dose is probably in the neighborhood of 1000 International units (2). It is also interesting to note that the League of Nations Technical Commission has recommended a daily intake of 340 International units of vitamin D for pregnant and lactating women (3).

Irradiated pasteurized milk containing 135 International units per quart and irradiated evaporated milk of the same potency have been found equally effective in preventing rickets in infants. The pediatrician will be interested in the following summary taken from a recent review:

> "Such evidence as is available may be interpreted to show that cod liver oil, cod liver oil concentrate milk, and irradiated milk are of equal potency for the human being, unit for unit." (1-b).

Other than the above recommendation for vitamin D intake during pregnancy and lactation (3), little definite information is available upon which to establish minimum vitamin D requirements of the human after infancy (1), yet while sunlight produces the anti-rachitic factor, most common foods are known to be deficient with respect to vitamin D (4). However, certain foods such as eggs, butter, liver and sea foods do supply this vitamin. The importance of sea foods, especially canned salmon, as carriers of vitamin D has been definitely established. A recent report on the vitamin D content of different varieties of canned salmon gave a value of 1.9 International units per gram for the least potent brand and 6 or more units per gram for several other brands (5).

From a consideration of the vitamin D values of salmon oil, the oil content of canned salmon and the quantity of canned salmon consumed annually in this country, it has been concluded that there is more vitamin D in the canned salmon sold in this country than in the cod liver oil used for both human and animal feeding (6).

Although neither the minimal nor optimal requirements of individuals of different ages are definitely known, the values of evaporated milk fortified with vitamin D and of canned sea foods as sources of this important vitamin, are well established.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) a. 1937. J. Am. Med. Assn. 108, 206
b. 1936. Ibid. 106, 2150
(2) 1936. J. Am. Diet. Assn. 11, 503
(3) 1936. League of Nations Report on Physiological Bases of Nutrition, League of Nations Publication Department, Geneva.
(4) 1935. J. Am. Diet. Assn. 11, 119
(5) 1935. J. Home Econ. 27, 658
(6) 1931. Ind. Eng. Chem. 23, 1066

This is the twenty-third in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

PROFESSIONAL PROTECTION

SINCE 1899
SPECIALIZED
SERVICE

A DOCTOR SAYS:—

"Without your protection, your legal talent, your advice in these two suits, I would have been at a complete loss as to what to have done."

THE
MEDICAL PROTECTIVE COMPANY
OF FORT WAYNE, INDIANA
WHEATON, ILLINOIS

FORTIER and FORTIER
X-RAY LABORATORY

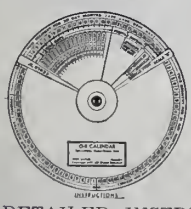
Deep Therapy, 200,000 Volts
Superficial Therapy
Roentgen Diagnosis

Radiographic Examinations made at beside in residence if desired.

709-710 MAJESTIC BUILDING
MILWAUKEE

Office Marquette 5150-5151
Residence Edgewood 0420

CALENDAR METHOD OF BIRTH CONTROL



A SLIDE RULE which calculates accurately the sterile and fertile days in menstrual cycles according to Ogino–Knaus Theory. Can be adjusted to coincide with the various menstrual cycles of women and designates quickly the exact days that are fertile and those that are sterile. It points out the most favorable time to bring about pregnancy.

DETAILED INSTRUCTIONS easy to follow accompany each Calendar.

Price—Single Calendar $1.00—12 Copies $6.00

SCIENTIFIC INSTRUMENTS, Inc.
3410 West 60th Place, Dept. WM-4 Chicago, Illinois

IN CASES OF
Malnutrition
the use of this
"PROTECTIVE FOOD DRINK"
is indicated

THE DIETETIC VALUES of Cocomalt establish it as a "protective food" in the opinion of many physicians.

For instance, Cocomalt is rich in Calcium and Phosphorus—but more than that Cocomalt also has a rich Vitamin D content which enables the system to utilize the Calcium and Phosphorus. Each glass of Cocomalt in milk provides .33 gram of Calcium, .26 gram of Phosphorus, 81 U.S.P. units of Vitamin D.

Furthermore, each ounce of Cocomalt, the amount used to prepare one cup or glass, contains 5 milligrams of Iron in readily-assimilated form. Thus, three glasses or cups of Cocomalt supply the average normal daily iron requirement.

These important and vital food essentials plus the protein and carbohydrate content signalize the value of Cocomalt for the diet of expectant mothers, undernourished children, elderly people, nursing mothers, convalescents. Cocomalt is easily digested, quickly assimilated.

Cocomalt is Palatable and Inexpensive

Two added virtues that make this "protective food drink" deservedly popular with physicians and patients alike. Of distinctive and appetizing taste, this protective food drink costs little in proportion to its merit. It may be served Hot or Cold as you prescribe.

Cocomalt is sold at drug and grocery stores in ½-lb. and 1-lb. purity sealed cans. Also, for professional use, in 5-lb. cans available at a special price.

Cocomalt is the registered trade-mark of R. B. Davis Co., Hoboken, N. J.

USE COUPON FOR
FREE PROFESSIONAL SAMPLE

R. B. DAVIS CO., Hoboken, N. J., Dept. ZZ-4.
Please send me a trial size can of Cocomalt without charge.

Dr. _____

Street and Number _____

City _____ *State* _____

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE OR RENT—Good general practice. Modern home with fully equipped offices in Cameron (population 900); excellent hospital facilities within fifteen-minute drive. Splendid opportunity for married physician; reasonable if taken at once. Reason for sale: Have been offered an advanced position. Address replies to Room 16, 111 South Hamilton Street, Madison.

FOR SALE—McIntosh diathermy, good as new. Cost with connections, etc., about $350. Price now $150.

McIntosh wall plate, good as new. Cost about $250 with hair depilatory outfit, etc. Price now $75.

McKesson gas machine, good as new except rubber connections. Large size. Cost about $325 with connections for oral surgery, etc. Price now $125.

Real bargains; must be cash. Address replies to Dr. Robert L. Fenton, Baraboo, Wisconsin.

FOR SALE—X-ray developing tank, tile construction; dimensions sufficient to develop up to size 14 by 17 films. Capacity sufficient for small hospital or large office. Will sell cheap. Address replies to No. 55 in care of the Journal.

FOR SALE—Sanatorium site, Platteville. Well-built house, new Oilomatic, seven acres of land. Address replies to Miss Elisabeth McGregor, office of Attorney General Madison, Wisconsin.

FOR SALE—One Benedict-Roth Basal Metabolism apparatus, $45 (cost $200); one Wappler Excell Diathermy with Oudin terminal, $75 (cost $750); one Mueller 6 K. w. water-cooled x-ray tube, $45 (cost $264); one 1500 w. thermo lamp, $15 (cost $75); one x-ray film safe 20 by 11 by 20.I.D. $25 (cost $50). All in A1. condition. Address replies to No. 60 in care of the Journal.

WANTED—Assistant by eye, ear, nose, and throat man. Experience not necessary but would help. Catholic preferred. Send complete personal and professional record in first letter. Address replies to No. 56 in care of the Journal.

WANTED—One or two additional specialists to share an excellently equipped and furnished suite in a Milwaukee downtown office building. Secretarial, x-ray, and laboratory facilities provided. Address replies to No. 59 in care of the Journal.

WANTED—Assistant on a salary basis in an established clinic in small rural community. Desire Wisconsin or Minnesota graduate with special training in internal medicine. Protestant desired. Conversational command of Scandinavian helpful, but not essential. Married man preferred. Accepted applicant may begin at once. Address replies to No. 58 in care of Journal.

ASSISTANT WANTED: An excellent opportunity to assist a well-established general practitioner in a city of 1,000. Lutheran preferred. Should be able to talk German. No cash required. Opportunity to take over eventually entire practice as present physician is absent over protracted periods. Office and living quarters in same building if desired. Full details can be secured by writing No. 57, care of Journal.

LOCATION—Splendid opportunity for Wisconsin registered eye, ear, nose, and throat man. Position open immediately in Milwaukee. Address Dr. V. A. Chapman, El Paseo Building, Palm Springs, California.

LOCATION AVAILABLE in an incorporated village with a population of 700. Both grade and high schools, creamery, cheese factory, broom handle mill, and veneer mill. No financial considerations involved. Address communications to Mr. Arthur Besse, Butternut, Wisconsin.

LOCATION AVAILABLE—Excellent opening for a specialist in diseases of the eye, ear, nose, and throat in a city of 15,000 population, with a trade area of fifty miles. Have a suite of rooms in best equipped building in city; these rooms were occupied for eighteen years by eye, ear, nose, and throat practitioner. High-rated, well-equipped hospital. Address inquiries to Mr. I. Shafton, Stevens Point, Wisconsin.

Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

Distributors of Soft Lite Lenses

GREATER COMFORT
BETTER APPEARANCE

We supply only the finest quality optical merchandise. And our Rx shop is manned only by experienced craftsmen — to produce quality prescription work for the most exacting.

N. P. Benson Optical Co., Inc.

"Established 1913"

MAIN OFFICE: MINNEAPOLIS, MINN.

—Branches—

ABERDEEN
BISMARCK
DULUTH
EAU CLAIRE
LA CROSSE
WAUSAU
RAPID CITY
STEVENS POINT
ALBERT LEA

Drink

Coca-Cola

Delicious and Refreshing

Pure refreshment

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

MADISON HEADQUARTERS

State Medical Society of Wisconsin
Annual Meeting, Sept. 8, 9, 10, 11, 1936.

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

NORMANDALE

for

Neuropsychiatric Cases

An institution for the treatment of functional and organic disturbances of the central nervous system, including psychoses.
For further information address:

Dr. I. B. Shulak, Supt.
NORMANDALE
Madison, Wisconsin

WHEN IN MADISON

Visit Your State Offices

Room 305, Washington Building

one block from the Capitol

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S

770 North Water St. Phone Daly 1461
MILWAUKEE, WIS.

Kenilworth Sanitarium

KENILWORTH, ILLINOIS
(Northern Suburb of Chicago)
Founded by Sanger Brown, M. D., 1905

Built and equipped for treatment of mental and nervous diseases. Over ten acres of well parked and landscaped grounds. Supervised occupational and recreational activities.

JAMES M. ROBBINS, M.D., Medical Director
E. J. KELLEHER, M.D.
CHRISTY BROWN, Business Manager
PETER BASSOE, M.D., Consulting Physician

All correspondence should be addressed to Kenilworth Sanitarium, Kenilworth, Ill.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

Send for application for membership in these purely professional Associations

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Since 1912

For Treatment of HAY FEVER

U.S.S.P. Co.

Complete Treatment Sets.

Pollen extracts for prophylaxis and treatment of Spring Hay Fever.

Experience has taught that pre-seasonal desensitization (begun four to ten weeks in advance of the expected attack) is much more successful than an effort to relieve Hay Fever by intensive treatment with Pollen Allergen Solutions after the onset of the symptoms. In recent years it has become apparent that perennial desensitization by suitable treatment spread over the entire year, is an excellent method of controlling Hay Fever.

Write for Literature.

U. S. Standard Products Company

U. S. Government License No. 65
Woodworth, Wisconsin

Ride a bike
and enjoy Chesterfields
They Satisfy

Chesterfield
CIGARETTES
LIGGETT & MYERS TOBACCO CO.
CHESTERFIELD

When smokers find out the
good things Chesterfields give them
.. nothing else will do

Copyright 1937, Liggett & Myers Tobacco Co.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission — A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction — The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities — Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

STEPHEN E. GAVIN, Fond du Lac, President
JAMES C. SARGENT, Milwaukee, President-Elect
A. E. RECTOR, Appleton, Speaker
HENRY J. GRAMLING, Milwaukee, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
A. W. Rogers-----Oconomowoc

Second District:
Frank W. Pope--------Racine

TERM EXPIRES 1937

Third District:
Joseph Dean ---------Madison

Fourth District:
W. Cunningham ----Platteville

TERM EXPIRES 1937

Fifth District:
A. H. Heidner------West Bend

Sixth District:
S. E. Gavin------Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi----------Galesville

Eighth District:
G. R. Duer----------Marinette

Ninth District:
Joseph F. Smith------Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler-------Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson------Iron River

Twelfth District:
Joseph Lettenberger-Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert---------Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Killins, Green Bay.
Calumet	A. J. Wagner, Brilllon	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purcell, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire-Dunn-Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	C. G. Richards, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, Blanchardville	E. D. McConnell, Darlington.
Langlade	Paul Dailey, Elcho	W. P. Curran, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	J. M. Freeman, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Williams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Oneida-Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Anderson, Plum City	A. E. McMahon, Glenwood City.
Polk	W. C. Andrews, Frederic	Earl C. Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempealeau-Jackson-Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	W. W. Coon, Walworth	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	O. A. Backus, Nekoosa	W. G. Sexton, Marshfield.

A Poor Scholar . . . because of a Poor Breakfast

MANY a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous, or stupid at school.

Pablum offers a happy solution to the problem of the school-child's breakfast. Mothers who learn about Pablum from their physicians are delighted to serve it for it needs no cooking and can be prepared in a minute at the table—more quickly than many less nourishing foods. Pablum not only ends the bane of long cooking of cereals but in addition furnishes a variety of minerals (calcium, phosphorus, iron, and copper) and vitamins (B and G) not found so abundantly in any other cereal.

PABLUM is rich in calcium and iron, minerals likely to be deficient in the school-child's diet yet needed in more than average amounts during childhood. Pablum is 6 times richer than fluid milk in calcium and contains 10 times more iron than does spinach. It also furnishes generous amounts of vitamins B and G, essential for normal appetite. Unlike other cereals, Pablum is base-forming, important because the growing child needs to store alkali. The nutritional value of Pablum is attested in studies by Crimm *et al* who found that tuberculous children receiving supplements of Pablum showed greater weight-gain, greater increase in hemoglobin, and higher serum-calcium values than a control group fed farina. Reprint sent on request of physicians. Mead Johnson & Company, Evansville, Ind., U.S.A.

Pablum (Mead's Cereal thoroughly cooked) is a palatable cereal enriched with vitamin- and mineral-containing foods, consisting of wheatmeal, oatmeal, cornmeal, wheat embryo, alfalfa leaf, beef bone, brewers' yeast, iron salt and sodium chloride.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons

When writing advertisers please mention the Journal.

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Reeducational Methods Applied.

Building Fireproof

Isolated, Fireproof Psychopathic Department for Acute Mental Cases

Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
JAMES C. HASSALL, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin
PETER BASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office:
Tuesday Mornings by Appointment

1330 Wells Building
Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1-3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
Rock Sleyster, M.D., Medical Director.
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".

DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

The Wisconsin Medical Journal

IN THIS ISSUE

SPINAL CORD INJURIES
By David Cleveland, M. D.
APPENDICITIS; SCHILLING COUNT
COLONIC CARCINOMA
By Claude F. Dixon, M. D.
ARTERIAL DISORDERS OF EXTREMITIES
By Maurice Hardgrove, M. D.
DIAGNOSIS OF SYPHILIS
1. By W. F. Lorenz, M. D.
2. By W. D. Stovall, M. D.

COLLEGE OF PHYSICIANS
LIBRARY
JUN 23 1937
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 332

Vol. XXXVI, Number 5
Washington Avenue

MADISON, WISCONSIN, MAY, 1937
Copyright, 1937, by The State Medical Society of Wisconsin
Per Year $3.
Single Copy 50 Cen

RIVER PINES SANATORIUM
FOR TUBERCULOSIS

STEVENS POINT
WISCONSIN

RIVER PINES SANATORIUM takes great pleasure in announcing the appointment of T. L. Harrington, M. D. as Medical Director, beginning May 1, 1937.

Dr. Harrington was for many years on the staff of the Wisconsin Anti-Tuberculosis Association.

Waukesha Springs Sanitarium
FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

Laid up for Months

BUT THIS PATIENT'S PAYMENTS ARE NEVER OVER-DUE

● Injured in an industrial accident, this man chose his own Doctor and placed himself under his supervision. Because his compensation checks come in regularly, he can take full time for recovery. Because the Doctor's bills are paid promptly by the Insurance Company, he need lack no medical assistance.

In this sense EMPLOYERS MUTUALS is the partner of the Doctor, permitting him to give his patient the best medical attention without financial loss. And because Doctors have learned to depend upon EMPLOYERS MUTUALS for such cooperation, they turn to EMPLOYERS MUTUALS for their own Insurance Protection.

EMPLOYERS MUTUALS write Automobile, Public Liability, Fire, and other forms of Insurance for individuals. They appreciate the confidence displayed by policyholders in the Medical Profession. Why don't you investigate what these strong Mutual Companies can do for you — in protection and in savings. Call any EMPLOYERS MUTUALS office!

EMPLOYERS MUTUALS

Appleton
Eau Claire
La Crosse

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.
EMPLOYERS MUTUAL INDEMNITY CORPORATION
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY
Home Office: Wausau, Wisconsin

Madison
Milwaukee
Superior

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 5

MADISON, WISCONSIN, MAY, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

Spinal Cord Injuries from the Neurosurgical Standpoint by David Cleveland, M.D., Milwaukee ---- 343
The Schilling Count in Appendicitis by John A. Schindler, M.D.; W. B. Gnagi, Jr., M.D.; and Eula Peden, Monroe ---- 347
Practical Considerations in the Treatment of Colonic Carcinoma by Claude F. Dixon, M.D., Rochester, Minnesota ---- 355
The Diagnosis and Treatment of Arterial Disorders of the Extremities by Maurice Hardgrove, M.D., Milwaukee ---- 358
Obtaining Blood for Serology by W. F. Lorenz, M.D., Madison ---- 364
The Diagnosis of Primary Syphilis by W. D. Stovall, M.D., Madison ---- 370
The Treatment of Pulmonary Abscess; Review of Thirty-one Cases at the Wisconsin General Hospital by Peter A. Midelfart, M.D., and Joseph W. Gale, M.D., Madison ---- 373

EDITORIALS

Page

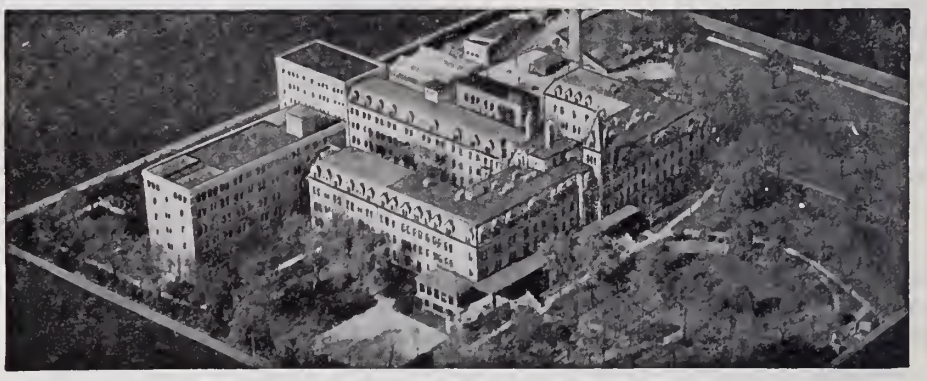
Nephrostomy ---- 380
The House of Delegates ---- 381

MISCELLANY

The President's Page ---- 382
Society Proceedings ---- 383
The Woman's Auxiliary ---- 384
News Items and Personals ---- 387
Births, Marriages, and Deaths ---- 389
Society Records ---- 389
Correspondence ---- 389
Preliminary Program Announced for National Tuberculosis Association, May 31–June 3 ---- 391
Radio Programs on Three Stations ---- 393
Books Received for Review ---- 394
Book Reviews ---- 394

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]

"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."



SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physio-mechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M. D.
Frank W. Mackoy, M.D. — Hubert H. Bianchard, M.D.
L. Tennyson Peyton, M.D.

When writing advertisers please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **B. P. Grimes, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

EYE WEAR BY BENSONS

Finest quality materials
Accurate craftsmanship
Correct styling

N. P. Benson Optical Co., Inc.

"Established 1913"

MAIN OFFICE: MINNEAPOLIS, MINN.

—Branches—

ABERDEEN
BISMARCK
DULUTH
EAU CLAIRE
LA CROSSE
WAUSAU
RAPID CITY
STEVENS POINT
ALBERT LEA

THINK OF THIS!

★ Karo Syrup contains **twice** as many calories as . . .

Maltose - Dextrins — Dextrose powdered including Karo powdered

★ Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.

For further information,

write CORN PRODUCTS SALES COMPANY, Dept. SJ-5 17 Battery Place, New York

You'll Feel Justifiably Proud In Owning This X-Ray Unit

—not only because it equips you for a more complete diagnostic service which patients appreciate, but also because the quality of films it enables you to produce will reflect credit to yourself.

Everywhere, the G-E Model R-36 Shockproof Unit is acclaimed the most practical and efficient moderately-priced apparatus ever designed for general radiographic and fluoroscopic diagnosis. Here you find ample power for radiography of all parts of the body, including fractional-second chest exposures at a 6-foot distance. Fluoroscopic examinations, too, over the entire table-top, in all angular positions, with new conveniences providing distinct advantages.

Compact and self contained, the R-36 requires very little floor space. With both tubes oil-immersed, it is 100% electrically safe, with operation independent of climatic conditions. A double-focus Coolidge tube provides for both light and heavy types of radiography.

Correct design, unusual conveniences, simplicity of operation and consistent performance—these are reasons why you can rely on the Model R-36 for a strictly high quality of results.

Mail this coupon today for full particulars—without obligation.

GENERAL ELECTRIC X-RAY CORPORATION A55
2012 Jackson Boulevard, Chicago, Illinois

So that I may learn how the Model R-36 may be adapted to my needs, please send the descriptive catalog.

Name .....

Address .....

.....

GENERAL ELECTRIC X-RAY CORPORATION

TO THE DOCTOR'S WIFE

•

It is our conviction that cosmetics should be selected to suit the individual's requirements. We cater exclusively to you, the individual. Our representatives are trained to help you select suitable beauty preparations and to show you how to apply them.

It is only sensible to realize that a truly beautiful skin is first of all a healthy skin and secondly a well-cared-for skin.

Cosmetics serve to enhance your appearance, to present you at your best. In this regard it is well to bear in mind that a natural appearance is by far the most charming.

Carefully selected, and artistically applied, make-up preparations lose their identity as cosmetics and become an indistinguishable part of your personality.

We want it clearly understood that we in no way undertake to treat skin disorders. If you are thus afflicted we had rather that you not use our preparations without the consent of a skin specialist. Our formulary is available to the medical profession.

A card addressed to us will be referred to the manager of the territory in which you reside. It is our pleasure to be at your service.—LUZIER'S, Inc.

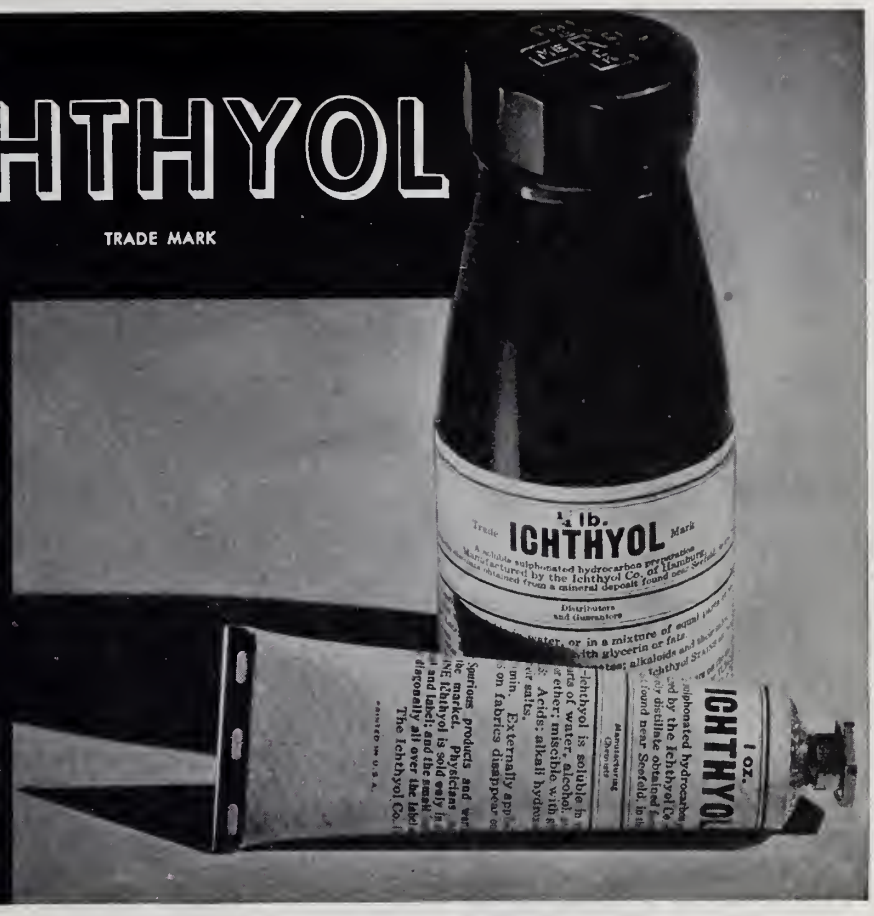
Beauty Preparations by Luzier

KANSAS CITY, MISSOURI

ICHTHYOL

TRADE MARK

Council Accepted



MILDLY ANTISEPTIC

AND ASTRINGENT

EMOLLIENT

Ichthyol is a soluble, sulfonated hydrocarbon preparation belonging to the general class of Ichthammol N. F. of which Ichthyol is the prototype.

OINTMENTS in any desired strength available from your pharmacist on order or prescription.

"Ichthyol" is the registered trademark of the product supplied under the Merck label. When you prescribe "Ichthyol" you are utilizing the product originally introduced by Unna.

Prescribe "Ichthyol" for "Ichthyol" results

MERCK & CO. Inc. *Manufacturing Chemists* **RAHWAY, N. J.**

WHEN DEALING WITH CANCER

Consider the Utility, Accessibility and

LOW COST OF RADIUM THERAPY

LEASING PLAN: Equivalent to radium ownership without CAPITAL investment. You keep possession continuously. We pay insurance and upkeep. Fifty milligrams for $22.50 per month; 100 milligrams $40. Larger amounts in proportion. New radium. Modern platinum containers.

RENTAL PLAN: Any quantity available by special delivery express. Platinum tubes and needles, and plaques, in all dosage range. The basic rate is $10 for 50 milligrams for 36 hours actual time of application.

PURCHASE PLAN: Radium in all forms available for purchase in any quantity at the lowest price in the history of the radium industry.

RADON: Radon in ALL-GOLD implants at $2.50 per millicurie.

THE COMPLETE SERVICE FOR RADIUM USERS

Telephone RANdolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building **25 E. Washington St.**

CHICAGO, ILLINOIS

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter

Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen and silk. Washable as underwear. Booklet shows three different "types" and many variations of each.

Picture Shows "Type N"

For Ptosis, Hernia, Pregnancy, Obesity, Relaxed Sacroiliac Articulations, High and Low Operations, etc.

Each Belt Made to Order. Ask for literature

Katherine L. Storm, M. D.

Originator, Owner and Maker

1701 Diamond Street Philadelphia, Pa.

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)

Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES.

MEDICINE—Informal Course first of every week; Intensive Personal Courses during August.

SURGERY—General Course One, Two, Three and Six Months; Two Weeks Intensive Course Surgical Technique (Operative Surgery with Practice); Clinical Course. Courses available every week.

GYNECOLOGY—Four Weeks Intensive Personal Course starting August 2. Two Weeks Course starting September 20 and October 18.

FRACTURES & TRAUMATIC SURGERY—Informal Practical Course; Ten Day Intensive Course starting July 12.

OTOLARYNGOLOGY — Two Weeks Intensive Course starting October 4.

OPHTHALMOLOGY—Two Weeks Intensive Course starting October 18.

UROLOGY — General Course Two Months; Intensive Course Two Weeks Special Courses.

CYSTOSCOPY—Intensive Course every two weeks (attendance limited).

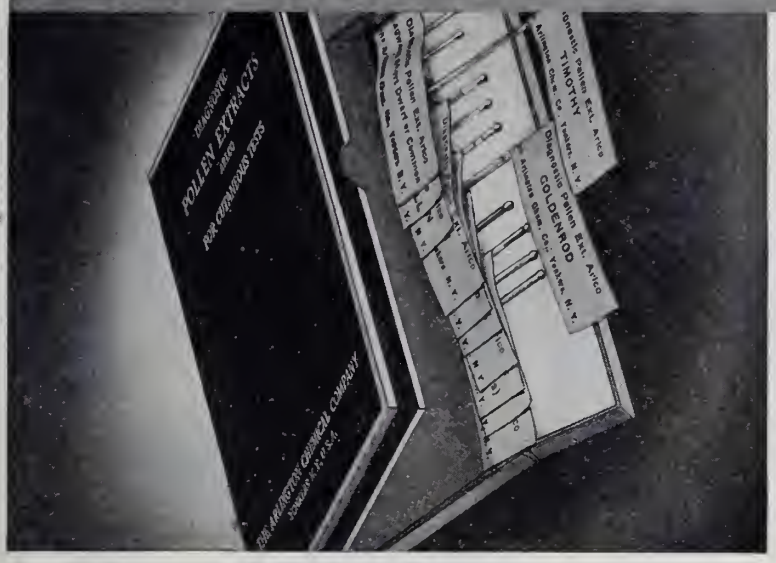
General, Intensive and Special Courses in all branches of Medicine and Surgery starting every week.

Teaching Faculty—Attending Staff of Cook County Hospital

Address: Registrar, 427 South Honore Street, Chicago, Illinois.

DIAGNOSE YOUR Hay Fever CASES

BY THIS SIMPLE METHOD



$1 COMPLETE

WITH the use of these diagnostic pollen outfits—made up for individual cases and areas—diagnosis of hay fever cases is both simplified and accurate. Just fill out the coupon and mail it to us with one dollar. We shall send you by return mail a special set with complete instructions for use and a chart for recording reactions. You may forward the result of your tests and receive suggestions for the management and desensitization of your patients. (Correspondence is invited on allergic problems.)

POLLEN EXTRACTS (ARLCO) are available in standardized sets for desensitization and need no dilution. Special pollen mixtures are made up without extra charge. Prices on concentrated pollen extracts (Arlco) are furnished on request.

DIAGNOSTIC PROTEIN EXTRACTS (ARLCO) are offered in special sets for testing asthma, infantile eczema, and other allergic conditions. 80-protein set, $25.00. 112-protein set, $35.00. (Slightly higher in Canada.) Write for our new 36-page monograph, *The Principles of Allergy.*

THE
Arlington
CHEMICAL COMPANY
Yonkers, N. Y.

FILL IN THIS COUPON

THE ARLINGTON CHEMICAL CO. (Biological Department), YONKERS, N. Y.

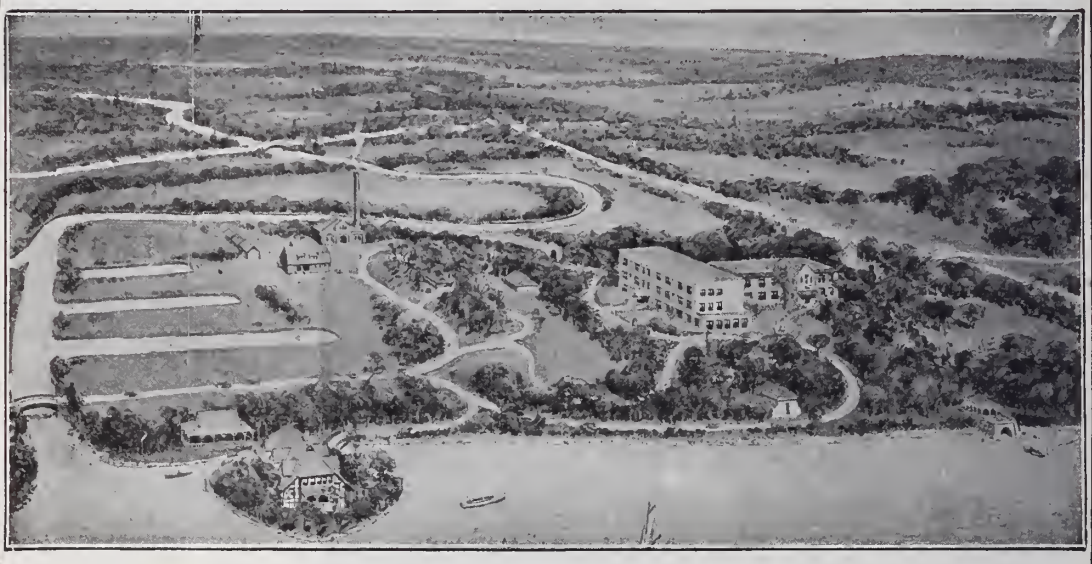
Enclosed find $1.00 for a complete diagnostic pollen outfit for testing hay fever case.

Patient's date of onset of attack is_____ Date of termination of patient's attack is_____ Mail set to_____ M. D.

Address_____ City_____ State_____

WIS.-5

THE SUMMIT HOSPITAL



Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Homelike Environment

Excellent Cuisine

Moderate Rates

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

MOVING

OUR MAIN HEADQUARTERS

From Jackson Street

TO THE BANKERS BUILDING

208 East Wisconsin Avenue

ABOUT MAY 30

New Home of Milwaukee Optical Co.'s Main Headquarters 4th Floor Bankers Building N. E. Corner East Wisconsin and N. Water

THIS NEW AND IDEAL LOCATION IS FAR MORE CONVENIENT FOR OUR PATRONS AND THEIR CLIENTELE TO READILY REACH OUR EAST SIDE DOWNTOWN OFFICES AND PLANT.

Then, too, these new, inviting and larger offices, also our newly equipped and scientific laboratories with complete facilities, afford us greater opportunity to serve better than ever and to cope with our rapidly expanding business.

Your "Home State" Optical Concern

THE MILWAUKEE OPTICAL MFG. CO.

MILWAUKEE

Formal announcement, advising as to exact date of change in our address, will be released later.

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$32.50 a week and up for room, board, and daily mud bath.

W. E. Nicety, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department

Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 5 Copyright, 1937, by The State Medical Society of Wisconsin MAY, 1937

Spinal Cord Injuries from the Neurosurgical Standpoint*

By DAVID CLEVELAND, M. D.
Milwaukee

MODERN living, which includes high-speed travel, construction of and dwelling in higher buildings, sports, such as diving and football, and many other factors, has greatly increased the incidence of injuries to the spine. Unfortunately these injuries are frequently complicated by spinal cord involvement. It becomes the duty of the physician to meet this increasing incidence with an alertness for immediate recognition of signs pointing to spinal cord injury. An apt, constant and detailed attention for progression of symptoms, and an adequate judgment as to the therapeutic measures must be employed. To have such judgment, knowledge of the anatomy and physiology of the spine and spinal cord is necessary.

The twenty-four vertebrae of the spine are joined together by strong ligaments and interlocked by articulating processes. The spine extends from the skull above to the sacrum below as a long, tapering, slender column with forward cervical and lumbar and with backward thoracic curvatures. The cervical vertebrae are frail and because of the cervical-thoracic curve the fifth, sixth and seventh vertebrae are subject to fracture and forward dislocation from downward blows such as are received in diving or head falls. The heavy neck muscles and flexibility of the cervical spine protect this part of the column to a great extent from direct blows.

The first ten thoracic vertebrae are held in a more or less rigid position by the attached rib cage. Because of this and of the normal thoracic curvature, stress or pressure in a vertical direction is greatly absorbed by the resilient intervertebral discs. In this region direct blows to the back, received when one is struck by automobile radiators or bumpers, tend to crush the spinous processes and laminae inward before producing a fracture-dislocation of the bodies.

The five lumbar vertebrae are heavy and strong with muscular protection behind. The lumbo-thoracic curve, however, causes the twelfth thoracic and first lumbar vertebrae to be susceptible to fracture-dislocations from upward blows received from falling from heights and landing on the feet or buttocks. The body of the first lumbar is particularly prone to be compressed anteriorly as a wedge and dislocated posteriorly. The violent flexion often associated with falls usually produces or increases the fracture-dislocation.

The spinal canal lies behind the bodies of the vertebrae, between the pedicles, medial and anterior to the laminae and spinous processes. The cervical portion of the canal is shallow and quite well filled with the cervical enlargement of the cord. Because of this, accidents to the cervical spine, particularly the lower portion, often produce cord injury. The thoracic and lumbar parts of the spinal canal are round and much larger than the cord. Because of the inward displacement of the fractured spinous processes and laminae, injury to the cord in the thoracic region is commonly of a true anatomic type from indriven bone fragments. It should be emphasized and reemphasized at this time, however, that there is no means of determining between an anatomic and physiologic lesion of nervous tissue except by direct vision. Cord lesions in the lumbar region are usually due to a scissors-like action when the vertebra is

* Presented before the 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

forced posteriorly by the sudden flexion and direct upward force. It must be remembered that the extension following violent flexion may be as damaging as the flexion. Also, while the final dislocation following an injury may not be great, the actual range of displacement of the vertebra during the immediate shift may have been great enough to completely obliterate the spinal canal.

In consideration of the spinal cord in spine injury its segmental relationship to the vertebrae must be remembered. The growth of the spine takes place at a greater rate and it becomes longer than the spinal cord. Consequently in adult life the spinal cord ends at the lower border of the first lumbar vertebra with a corresponding difference in the cord segments and the vertebral bodies. The spinal nerves originate from the cord at a level approximately four vertebrae higher in the lumbar region; three in the lower thoracic; two in the upper thoracic and one in the cervical regions than at the point from which they emerge. It is thus apparent that a spine injury at one level involves a lower segment of the spinal cord. Below the first lumbar vertebra the canal contains only the cauda equina and the filum terminale of the cord. Injuries therefore affect the cauda equina which are in reality peripheral nerves. One must remember these few anatomic facts in localizing a spinal cord injury.

Spinal cord injuries may be classified as anatomic or physiologic. Anatomic lesions may consist of anything from small discreet hemorrhages within the cord substance to complete crushing or severance of the cord. Physiologic lesions, on the other hand, are usually due to pressure on, or edema of, the cord without severance of anatomic pathways. Such lesions result in a block sufficient to prevent the passage of impulses past the point of the lesion. Interruption of the blood supply of the spinal cord, unless relieved rather early, is very apt to result in anemic softening and a subsequent anatomic lesion of the cord.

Early Diagnosis Important

The diagnosis of spinal cord injury associated with injuries to the spine is not only the duty of the specialist of that field, but the duty of the physician who sees the patient first. It is often through such a diagnosis that successful treatment is instituted. Little effort on the physician's part, and no discomfort to the patient, is required to make the few tests necessary to determine the presence or absence of spinal cord involvement. A common pin for testing pain sense, a piece of cotton or soft cloth for light touch, and the fingers to test pressure and position sense will suffice to determine disturbance in sensation. By these simple means, the sensory level which is of great importance in diagnosis and localization is quite easily and accurately obtained. The knowledge of a few motor levels is necessary to complete the diagnosis and may mean the saving of a patient's life or his ability to function in a normal manner. The deltoid muscle, which abducts and externally rotates the arm, is innervated by the fifth cervical nerve, the biceps which flexes the forearm is innervated by the sixth cervical nerve, the triceps which extends the arm by the seventh cervical nerve, the adductors and abductors of the fingers by the eighth cervical and first thoracic nerves. The abdominal recti muscles, above the umbilicus, are innervated by the ninth and tenth thoracic nerves, and below the umbilicus, by the eleventh and twelfth nerves. If the raising of the head while the hands are at the side causes the umbilicus to pull upward the lesion can be localized at the tenth thoracic segment. Flexors of the hip are innervated by the second and third lumbar nerves, extensors of the knee by the third and fourth lumbar. The flexors and extensors of the feet and toes are innervated by the fourth lumbar to the third sacral nerves.

The treatment of spinal cord injuries must of necessity depend upon the findings of a careful neurologic examination. It should go without saying that before a patient with a spine injury is moved from the place of the accident, he should be examined for neurologic signs. Movement of the patient should always be in the prone position, preferably with the face downward. The injured individual must never be allowed to assume the sitting position or allowed to walk. Lifting the patient should be done by exerting a pull

from the shoulders and from the feet, and then lifting him to a stretcher while the pull is being exerted. A progression in neurologic symptoms indicates that further pressure or edema of the spinal cord is taking place and a laminectomy should be performed as soon as possible to relieve this. Orthopedic measures for the treatment of spine injuries are beyond the scope of this paper, however, it should be remembered that compound fractures of the spine should be treated as compound fractures elsewhere in the body. It is needless to add that when shock exists it should be treated as such.

All cases of spine injury with spinal cord involvement should have a spinal puncture with a careful manometric study. If jugular pressure does not cause a prompt elevation in the spinal fluid pressure, a block in the fluid pathway is known to exist. This is of the utmost importance in determining the therapeutic course to be pursued. X-ray examination is very important both for the localization of bony injury and the ascertaining of the degree of deformity. In most cases this can be done without seriously disturbing the patient.

Fracture dislocation of the cervical spine is usually best managed by neck extension for twenty-four to thirty-six hours for the correction of the deformity. If after this time a spinal block exists, a laminectomy should be performed to decompress the cord. If the cord has been severed no return of function will occur, but if the block was due to pressure the decompression may allow recovery. It should be strongly emphasized that one should be familiar with nervous tissue before attempting surgery on it. An injured spinal cord is often mushy in consistency and the slightest additional trauma can irreparably damage it.

Injuries to the thoracic cord, as before stated, are commonly due to indriven bone fragments. If no block exists a laminectomy is futile, since the removal of bone fragments from the cord will in no way bring about restoration of function—regeneration does not take place in the spinal cord. If a block is present, however, a laminectomy is indicated. By this operative procedure any extraneous pressure on the cord may be relieved and physiologic function restored.

Injuries to the cord in the lumbar region are often considered as being surgical in nature regardless of whether or not there is a co-existing spinal block. A block in the spinal fluid pathway necessitates surgical relief in the form of a laminectomy, but because the lumbar spinal canal contains the cauda equina the indications for surgical exploration are greater than in the other regions of the spine. It must be remembered that cauda equina is made up of peripheral nerves. If the cauda equina is severed and subsequently sutured, it will, therefore, regenerate like any other peripheral nerve, at least in the motor elements.

Probably the most important part of the general care of patients with spinal cord injury, whether or not surgery is performed, is the nursing care the patient receives. Areas of trophic disturbance will rapidly break down and form large ugly decubitus ulcers. To prevent these the patient should, if possible, be placed on a water or air mattress to allow even distribution of body weight. The sheets should be kept dry, clean and smooth. Any soilings should be removed immediately. Close adherence to this routine will greatly add to the patient's chance for life, and will save the physician the embarrassment of having his patient develop unnecessary bed sores.

Care of the Bladder

Care of the urinary bladder is of vital importance in spinal cord injuries. There is difference of opinion regarding the method to be employed, but we have found the following plan to be most successful: Since complete urinary retention or incontinence may be a sequel to cord injury, measures to prevent overdistention and urinary sepsis must be employed early. Urinary sepsis may not only prevent a return of function in the cord, but it may endanger the patient's life. Distention of the bladder to the point of overflowing and dribbling will destroy the contractile power of the bladder musculature. Frequent catheterization is traumatizing and adds to the danger of introducing infection. For this reason the use of an in-

dwelling catheter is recommended. This catheter should be clamped and opened every four or five hours depending on the filling time of the bladder. This procedure aids in the establishment of an automatic bladder. If the bladder is irrigated daily with a warm mild antiseptic solution the indwelling catheter may be left in place for several weeks without being changed. Suprapubic cystostomy may become necessary in the treatment of urinary infection.

Treatment of Paralysis

The treatment of paralyzed extremities is dependent upon the type of paralysis. Spastic paralysis is associated with an increase in the tonicity of muscles. Very light stimulation may set up a rigidity spasm of the muscles. Therefore, the patient should be as completely relaxed as possible while treatment is being carried out. Massage should be light and stroking. Active movements should be delayed until several weeks after the injury and then begun with the greatest attention on the part of both the patient and the attendant. Passive movements must be gentle, but since they are necessary for the prevention of deformities, they must be a part of the therapeutic routine. Soothing, warm baths may be of great aid in obtaining relaxation of rigid muscles.

Flaccid paralysis is associated with a decrease in the tone of the muscles, and greater stimulation is necessary to evoke muscular response. Fifteen minutes' exposure under an infra-red lamp or in a whirlpool bath should precede massage. Massage is started as a gentle stroking and gradually increased to a centrifugal kneading to aid the lymphatic and venous circulation. Active and passive movements are started early. Active movements are often greatly aided by placing the patient or part to be moved in a water bath. Electrotherapy should not be used in spastic paralysis, but is of value in the treatment of flaccid paralysis. Sinusoidal stimulation of the involved muscles three times a week may not only shorten the period for recovery, but may prevent muscular atrophy to a great extent.

Educational Factors

An integral part of the treatment of paralysis is the use of controlled exercise. By such means the patient may be taught to make use of recovering muscles or to use untrained muscles to take over the functions of those that are paralyzed. Various devices may be used to aid in the education of muscles. These include walking splints such as babies use in learning to walk, bicycles or rowing machines, hand weaving machines, jig-saw puzzles and many other simple devices.

Orthopedic Measures

Flaccid paralysis may result in deformities which unless corrected may be very disabling. Mechanical means such as braces or splints are often used with satisfactory results. On the other hand, various orthopedic operations may be necessary to obtain the desired correction. Splints or braces are seldom of any value in spastic paralysis. In these cases when physical therapeutic measures do not prevent muscular spasm, surgical intervention to divide tendons, nerves or roots may be indicated. No rule may be laid down for the indications for treatment, but each case must be considered separately and so treated.

Conclusions

1. Patients with spine injuries should be examined immediately for neurologic complications. Transportation of the patient should always be in the prone position.

2. Increasing neurologic signs or the presence of a subarachnoid block are indications for a laminectomy. An injured spinal cord is soft and may be easily damaged beyond all power of recovery.

3. The nursing care of the patient is extremely important. The patient's skin should be kept clean and the bed should always be dry, clean and smooth. Decubitus ulcers should be prevented.

4. Prevention of urinary sepsis is necessary. An indwelling catheter, which is clamped off and opened every four or five hours, depending on the filling time of the bladder, has been found to be the most satisfactory method of preventing urinary sepsis.

5. Light massage and passive movements

are important in the treatment of spastic paralysis. A more vigorous massage and active and passive movements are used in the treatment of flaccid paralysis. Electrotherapy is of value only in flaccid paralysis.

6. Orthopedic measures may be necessary for the treatment of paralysis or correction of deformities. These measures are usually not indicated until maximum recovery has taken place.

The Schilling Count in Appendicitis*

By JOHN A. SCHINDLER, M. D., W. B. GNAGI, JR., M. D., and EULA PEDEN
Monroe

THE classification of leukocytes which was standard until recent years was elaborated by Ehrlich as a result of his aniline dye studies. Ehrlich's classification has gradually been replaced by another system known after Victor von Schilling[1] of the First Medical University Clinic of Berlin, who, in 1912, made known his elaboration. The Schilling count is more simple and practical than the system Arneth presented in 1904, and more nearly resembles that evolved by Schindler.[2] The information which the Schilling count affords is enough greater than that of the Ehrlich count to warrant the additional necessary time in making the count.

The only essential difference between the Schilling differential and the Ehrlich differential is a division of Ehrlich's polymorphonuclear neutrophils into three classes (fig. I), juveniles, stabs and segments, and the inclusion of myelocytes in the routine count. The polymorphonuclear neutrophils were divided according to the type of nucleus present which factor determines their age or degree of maturity. In a general way the more severe an infection, the larger the number of relatively immature cells which will appear in the blood stream. In overwhelming infections the numerical order is definitely shifted toward the myelocyte and away from the segmented mature leukocyte. When expressed in terms of Schilling's hemogram (fig. II), this is known as a shift to the left.

The nucleus of the youngest neutrophil or myelocyte is large and oval, round or notched (fig. II). When the notch is present it is not more than 25 per cent of the diameter of the nucleus. The protoplasm is very pale and spongy. The myelocyte is never normally present in the blood stream.

The juvenile is the next in the order of development. It has a sausage-shaped nucleus, and stains slightly darker than the myelocyte. The stab cell is the type of neutrophil seen just before the nucleus breaks up into segments. The nucleus stains darkly and unevenly, and it may be bent like the letters or numbers U, V, S, W, T, E, 6, 8, and 3. In the stab, segmentation of the nucleus may be definitely apparent but the lobes are still connected by bands of chromatin wider than a thread. Normally 2 to 5 per cent of these cells are present in the blood.

FIGURE I

Ehrlich	Schilling
1. Basophil	1. Basophil
2. Eosinophil	2. Eosinophil
3. Neutrophil	3. Neutrophil
A. Myelocytes	A. Myeloctes
B. Polymorphonuclears	B. 1. Jugenliche (juvenile) 2. Stabkernige (stab) 3. Segmentkernige (seg.)
Lymphocytes	Lymphocytes
Large mononuclears Transitionals	Monocytes

The segmented neutrophil is the final mature cell and is characterized by two or more segments in its nucleus. These segments

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

stain darkly and may or may not be connected by a very fine filament of nuclear material. Normally they constitute 60 to 65 per cent of the differential picture.

Since the development of Schilling's differential count various men have attempted to use it one way or another in predicting preoperatively the severity and stage of appendiceal inflammation. (Sonnenberg, Crocker and Valentine,[3] Luck,[4] Eisenberg and Niemans,[5] Yaguda,[6] Carlson and Wilder,[7] Harter and Lyons,[8] Reveno and Berent,[9] Rogatz,[10] and others.[11]) We have followed the methods of Sonnenberg, and Rogatz, and have used the combined nonsegment neutrophil count as an index of the severity of appendiceal inflammation. We are reporting in detail counts in fifty consecutive diagnoses of appendicitis.

We wish to report the Schilling counts in fifty consecutive diagnoses of acute appendicitis. No cases were included in this series in which a reasonable doubt existed that the patient was suffering from a disease other than appendicitis. In other words, the clinical history and the signs and symptoms were practically typical of acute appendicitis in each of these cases, and other possibilities were ruled out with a fair degree of certainty.

All Schilling counts were made and recorded without seeing the patient and before the appendectomy was performed. On the operating table the severity of the appendiceal pathology was classified into five groups, the second and third not always being capable of exact differentiation from each other. All appendices were subjected later to microscopic examination.

Figure II

			Neutrophils					
W.B.C.	B	E	M	J	St	Seg	Ly	Mon
7,500	1	3	0	0	4	63	23	6

We routinely use the faster Wright stain, excepting in rare cases where greater definition may be necessary, in which case we resort to the Giemsa stain. All the counts were made by either one of two technicians, who at intervals closely check their Schilling technique. Let it be said here that the Schilling differentiation is not difficult when once mastered, but we strongly believe that it is worthless in the hands of interns, or on any service where there is a constant shifting of laboratory workers.

The same technicians must be doing the work month after month in order to get a true and reliable picture. And it must be emphasized that Schilling's original technique should be followed carefully and in exact detail.

(1) Group I. The appendix was unmistakably and diffusely injected and red, with a portion, at least of the wall, indurated and firm. No free pus was found in the lumen, and there was no macroscopic inflammation of the surrounding structures. This group is referred to as "catarrhal appendicitis."

(2) Group II. The appendix contained pus, being fluctuant and distended to a greater or lesser degree. There was no marked inflammation of the surrounding structures. This group is referred to as "acute suppurative appendicitis."

(3) Group III. The appendix was suppurative and had become locally necrotic or diffusely highly inflamed. The surrounding peritoneum showed marked evidence of inflammation. In a few cases there was local-

ized extra-appendiceal pus. This group is called "acute suppurative appendicitis with localized peritonitis."

(4) Group IV. The appendix was ruptured and the peritoneal cavity was filled with purulent fluid. This group is called "ruptured appendicitis with general peritonitis."

(5) Group V. The appendix found at operation was normal and without inflammation. There may or may not have been fecaliths present.

It may be said here, without exhaustive detail, that the preoperative clinical picture in each of these groups was as often misleading as not. Some of the cases in group I had more alarming clinical signs and symptoms than some in group IV. For instance, case 3, a girl, aged eighteen, became ill Wednesday night with lower right quadrant pain, vomiting, tenderness, and marked rigidity over the McBurney region; pelvis and urine negative. The temperature was 102 degrees F., orally, pulse 110, W.B.C.'s 16,000. She was rushed to the hospital and a catarrhal appendicitis was found.

TABLE I

Acute, non-suppurative appendicitis, or Catarrhal appendicitis

	CASE	W.B.C.	B	E	Neutrophils M	Neutrophils J	Neutrophils St	Seg	Ly	Mon
	NORMAL	7,500	1	3	0	0	4	63	23	6
1	No. 2	12,000	1	0	0	11 / 0	11	62	19	7
2	No. 3	16,000	0	5	0	15 / 0	15	54	18	8
3	No. 12	8,000	0	5	0	17 / 2	15	57	17	4
4	No. 22		0	0	0	17 / 1	16	57	21	5
5	No. 30	14,800	1	5	0	17 / 0	17	50	19	8
6	No. 34	7,450	0	1	0	10 / 0	10	68	16	5
7	No. 35	8,150	0	0	0	7 / 1	6	51	36	6
8	No. 37	9,800	0	0	0	20 / 0	20	50	22	8
9	No. 39	6,700	1	1	0	20 / 2	18	38	33	7
10	No. 46	11,600	0	6	0	15 / 1	14	61	11	7
11	No. 47	11,000	1	0	0	15 / 1	14	67	13	4
12	No. 49	12,650	0	1	0	18 / 1	17	42	32	7
13	No. 9	10,200	0	6	0	8 / 0	8	48	32	6
14	No. 52	10,900	3	0	0	17 / 1	16	44	33	3

Lowest non-segment count 7. Highest 20. Average 15

Again case 41, a man, aged twenty, became ill on Monday, having epigastric pain all day, vomiting after supper. On Monday the pain localized in the lower abdomen, the left as well as the right. Tuesday he was constipated, his pain was not severe and he was up and around with a temperature of 99.4 degrees F., pulse of 86. Tuesday afternoon, tenderness was moderate across the lower abdomen, rigidity was not marked. The W.B.C.'s were 14,000. He did not present a grave-looking picture. Yet on operation at the time of these findings, a ruptured appendix with general peritonitis was found. Such vagaries are common in this series of cases and are common in the experience of all doctors.

Results

Group I. (See table I). In fourteen cases in which a catarrhal appendix was found at operation, the average nonsegment count was fifteen. In no case was it over twenty. The lowest was seven. The total W.B.C. counts in these patients averaged 11,000, the highest being 16,000, the lowest 6,700.

Group II. (See table II). In thirteen cases in which a purulent appendix was found at operation without involvement of the surrounding peritoneum, the average nonsegment count was twenty-nine, or distinctly higher than in the catarrhal group. In two of the thirteen cases the count was over thirty-three, one thirty-six, and one forty-three, and it was questionable whether they should not have been included in group III. Only one was below twenty-four, and that was twenty, or on the extreme upper margin of the catarrhal group. None of the suppurative group had a Schilling count that would have included it in the catarrhal stage.

TABLE II

Acute Suppurative appendicitis

	CASE	W.B.C.	B	E	Neutrophils M	J	St	seg	Ly	Mon	
	NORMAL	7,500	1	3	0	0	4	63	23	6	
1	No. 4	19,850	0	0	1	36 / 2	33	47	12	6	Greatly disturbed Beginning gangrene
2	No 8	10,250	0	1	0	20 / 1	19	75	6	2	Swollen, hard, fiery red.
3	No.20		1	2	1	29 / 2	26	47	27	2	Acute diffuse
4	No. 21	10,200	0	0	1	43 / 8	34	40	6	0	Beginning gangrene
5	No. 23		0	1	0	25 / 2	23	57	28	6	Acute diffuse
6	No.25	26,800	1	0	2	31 / 8	21	31	22	6	Bulbous
7	No.26	22,000	1	1	2	24 / 4	18	56	12	2	Acute diffuse
8	No.27	11,000	0	1	0	32 / 2	30	43	29	7	Acute diffuse
9	No.32	12,000	0	3	1	33 / 6	26	44	17	3	Firm, bulbous diffuse
10	No.40	21,800	0	1	0	32 / 3	29	51	14	4	Beginning Gangrene
11	No.44	10,800	1	1	0	26 / 0	26	40	28	4	Greatly disturbed fluctuant
12	No.48	11,000	1	0	1	24 / 2	21	56	15	3	Acute diffuse
13	No 51	13,000	1	1	0	28 / 4	24	51	20	1	Acute diffuse

Lowest non-segment count 20. Highest 43 Average 29.

TABLE III

Suppurative appendicitis with local peritonitis

	CASE	W.B.C.	B	E	M	J	St	Seg	Ly	Mon
	NORMAL	7,500	1	3	0	0	4	63	23	6
1	No. 1	16,000	0	5	0	33 / 6	27	33	15	14
2	No. 6	22,000	1	0	1	23 / 5	17	51	25	0
3	No. 3	13,200	0	0	3	32 / 8	21	50	8	10
4	No. 14	16,000	0	0	3	43 / 11	29	45	7	5
5	No. 15	9,000	0	0	0	38 / 7	31	59	1	2
6	No. 16	16,000	0	0	0	35 / 11	24	55	8	2
7	No. 19	11,500	0	0	0	36 / 1	35	38	23	3
8	No. 33	16,600	0	0	0	28 / 2	26	57	13	2
9	No. 36	15,200	0	0	0	33 / 2	31	52	9	6
10	No. 38	23,050	0	0	0	33 / 6	27	46	16	5

Lowest non-segment count 23. Highest 43. Average 33.

Group III. (See table III). In ten cases in which the inflammation had definitely spread outside a suppurative appendix causing a localized peritonitis, the average nonsegment count was thirty-three. One was over thirty-six, being forty-three. One was un-

TABLE IV

Ruptured Appendix with Generalized Peritonitis

	CASE	W.B.C.	B	E	M	J	St	Seg	Ly	Mon
	NORMAL	7,500	1	3	0	0	4	63	23	6
1	No. 5	37,000	0	0	0	43 / 12	31	50	6	1
2	No. 10	19,500	1	0	0	53 / 13	40	35	4	7
3	No. 29	18,600	1	0	0	46 / 2	44	40	8	5
4	No. 41	14,000	0	0	4	58 / 11	43	22	15	5
5	No. 52	13,000	1	0	3	53 / 10	40	35	10	1

Highest non-segment count 58 Lowest 43. Average 50

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

der twenty-eight, being twenty-three, thus definitely higher than the catarrhal group. The rest were between twenty-eight and thirty-six.

Group IV. (See table IV). In five cases of ruptured appendix with general peritonitis the average nonsegment count was fifty. The lowest was forty-three, the highest fifty-eight. Thus none of the counts was so low as to fall within the other groups.

In table V the nonsegment counts in each of the operative cases have been charted graphically. It will be seen that as the appendiceal pathology becomes more severe the nonsegment count grows progressively higher, falling in along a progressive regular

TABLE V

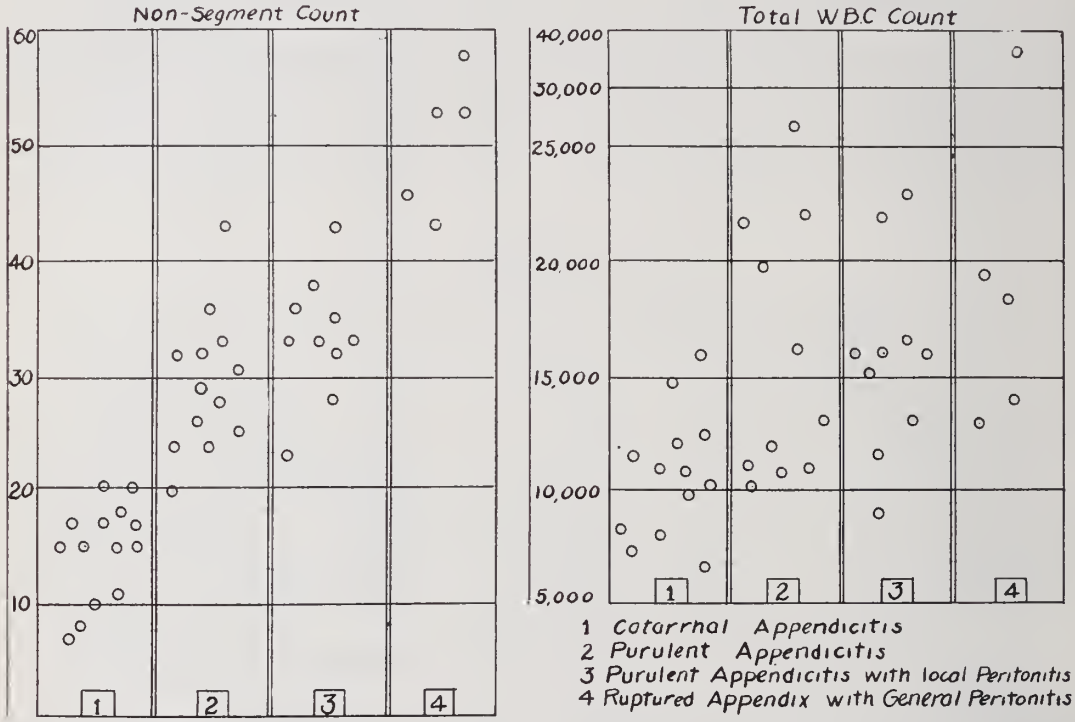


TABLE VI

Non-Segment Count

7–20	20–25	25–30	30–35	35–40	Over 40
Catarrhal appendicitis	Beginning purulent appendicitis	Purulent or severe non-ruptured appendicitis	Purulent appendicitis with beginning gangrene	Severe appendicitis with localized peritonitis fairly certain	Ruptured appendix
Safe to watch.	May still quiet down.	Not likely to quiet down.	Immediate danger	Immediate danger	GENERAL PERITONITIS
	Likely to get worse				
	Safest to operate				
		OPERATE	OPERATE	OPERATE	

curve. The total white blood cell counts tabulated similarly in the adjoining figure do not fall in along a regular curve.

TABLE VII

Patients with definite symptoms and signs of Appendicitis, but in whom it was desirous to defer operation. Watched with frequent Schilling counts.

	CASE	W.B.C.	B	E	M	J	St	Seg	Ly	Mon
	NORMAL	7,500	1	3	0	0	4	63	23	6
1	No. 11	14,000	1	3	0	8 0	8	50	35	3
		22,800	5	2	0	15 0	15	45	29	4
2	No. 18	13,000	0	0	0	19 5	14	40	32	9
3	No. 24	12,100	2	2	1	23 4	18	39	26	8
4	No. 42	11,000	0	1	0	24 8	16	48	23	4
5	No. 7	9,150	3	0	0	9 0	9	48	33	7

Group V. (See table VIII). In the one appendix found to be normal at operation, the nonsegment count had been ten. This individual was a girl, aged ten, in which a typical history and physical findings were present. The temperature was 99.2, the pulse 96. The white count was 16,000. No diagnosis was ever made in her case. She recovered without incident.

An additional group of patients had a well-defined and typical picture of appendicitis, with the usual low increase in temperature. Clinically, operation was definitely and immediately indicated. But for various reasons, it was desirable to defer operation if at all possible. The patients were carefully followed with repeated Schilling counts. The count with the highest nonsegment count is shown in each case. Since the count went no higher, we felt justified in waiting.

Three of these five had had more than one attack and later submitted to an interval appendectomy. In each case evidences of considerable previous appendiceal involvement was found in the form of extensive perifibrosis and adhesions.

TABLE VIII

Mistaken diagnosis. Operated on in spite of Schilling. Normal appendix found.

	CASE	W.B.C	B	E	Neutrophils				Ly	Mon
					M	J	St	Seg		
	NORMAL	7,500	1	3	0	0	4	63	23	6
1	NO 45	16,000	0	5	0	10 3	7	57	20	8

Comment

As with other laboratory procedures, the Schilling count is not meant to supplement the clinical faculties but rather to augment them and to increase the power of one's perception. It became apparent in the course of the series that the condition of the appendix could be determined preoperatively with uncanny accuracy. In table VI we have charted the degree of appendiceal disease which may be expected at the various nonsegment count levels, and where the clinical diagnosis is definitely that of appendicitis we do not hesitate to use this chart in our interpretation.

The method possesses value in that:

1. We are able to gauge the severity of an appendiceal attack, even in children, where this is usually clinically difficult.

2. Where the differential diagnosis is uncertain but includes the possibility of appendicitis, we feel that it is perfectly safe to watch and wait as long as the nonsegment count remains below twenty. We feel moderately safe in waiting as long as it is below twenty-five.

3. It offers definite information for the utilization of the Ochsner treatment in ruptured appendicitis. Personally we do not follow the Ochsner treatment but resort to operation in all cases.

Summary

1. Schilling counts are reported in fifty consecutive cases of appendicitis.

2. The degree of appendiceal disease was classified into four groups at operation.

3. The total nonsegmented neutrophil count taken preoperatively was found to be a reliable index of the extent of appendiceal involvement found at operation.

REFERENCES

1. Schilling, V.: The Blood Picture, St. Louis, 1929.
2. Schindler, J. A.: Quoted from Sahli: Diagnostic Methods, Philadelphia, 1920, p. 805.
3. Crocker, W. J., and Valentine, E. N.: Hemography in Diagnosis, Prognosis and Treatment Based on 6,000 Schilling Hemograms. J. Lab. & Clin. Med., **20**: 172-192 (Nov.) 1934.
4. Luck, J. V.: Schilling Differential Blood Count in Appendicitis. Am. J. Surg., **19**: 275-282 (Feb) 1933.
5. Eisenberg, A. A., and Nemens, H. S.: Value of Schilling Hemogram in Infections; Preliminary Report Based on 3,500 Cases. Am. J. Surg., **21**: 56-71 (July) 1933.
6. Yaguda, A.: Studies on Schilling Count in Appendicitis. Am. J. Clin. Path., **1**: 39-50 (Jan.) 1931.
7. Carlson, H. A., and Wilder, L.: Schilling Hemogram in Appendicitis. Arch. Surg., **30**: 325-335 (Feb.) 1935.
8. Harter, J. S., and Lyons, C.: Surgical Applications of Schilling Differential Blood Count. Surg., Gynec. & Obst., **56**: 182-186 (Feb.) 1933.
9. Reveno, W. S., and Berent, M. S.: Routine Use of the Filament-Nonfilament Count. J. Michigan. M. S., **31**: 443-449 (July) 1932.
10. Rogatz, J. L.: Schilling Blood Count as Aid in Diagnosis of Acute Appendicitis in Children. J. Pediat, **4**: 757-763 (June) 1934.
11. Gradwohl, R. B. H.: Schilling Methods. South. Med. & Surg., **94**: 53-63 (Feb.) 1932.

DISCUSSION

Dr. E. R. Schmidt (Madison): Any laboratory method that is an aid in clinical medicine is welcome. In order that this procedure may become generally used, it must give information that is reliable, fairly easy of interpretation, applicable to a large number of clinical cases, and technically simple enough so that the chance of error is small. Otherwise the procedure should be reserved for use in special cases in special institutions equipped with the technical help to perform the tests accurately and a clinical staff skilled in interpreting the results.

A criticism of today's medicine is that we are too dependent on laboratory tests and fail to use those time-honored methods of the older clinicians; namely, history of the patient, a careful physical examination, and cogitation. However, when the laboratory is used understandingly by the clinician, the benefit is great. If working in a large institution where laboratory help is easy to obtain, it is very easy to substitute laboratory tests for clinical examinations.

Doctors Gnagi and Schindler and Miss Peden have presented a very interesting paper. Their work is in accord with the previous work beginning with Arneth in 1904. The hemogram used today has been modified, making it much simpler, and the basis for the interpretation has been clarified. This method demonstrates the response of the bone marrow to infection. More important, by watching the serial hemograms, the progress of the case can be watched more closely and a better prognosis made. In differential diagnosis a Schilling hemogram, or a simple modification, may be of great aid, as in osteo-arthritis and rheumatoid arthritis, or an appendicitis with a low total white count. Undoubtedly, as there is more work done along this line, there will be greater application in the clinical field. Certain pitfalls are evident already. The white count is influenced by superimposed infections, anemias, and other blood dyscrasias. The action of the bone marrow to various stimuli is still not very definite. It means aid to the clinician if properly used.

Practical Considerations in the Treatment of Colonic Carcinoma*

By CLAUDE F. DIXON, M. D.
Division of Surgery, The Mayo Clinic, Rochester, Minnesota

MANY pitfalls are encountered in the diagnosis of colonic lesions because frequently the symptoms are quite characteristic of other clinical entities. Common erroneous diagnoses associated with carcinoma of the cecum or right half of the colon are secondary anemia of unexplained origin, pernicious anemia, peptic ulcer, cholecystic disease and appendiceal abscess. Malignant disease, of comparatively short standing, in the right half of the colon may produce rather marked secondary anemia. Frequently the patient gives a history of a dyspeptic type of trouble which may lead to the suspicion of or even to a diagnosis of an ulcer of the stomach or duodenum or disease of the gallbladder. Each year two or three cases of carcinoma of the cecum are found in which a diagnosis has been made of appendiceal abscess. Error in the diagnosis of carcinoma of the cecum, for example, is not necessarily due to the fact that this type of lesion has not come to the mind of the examining physician. The difficulty may have arisen from the situation of the lesion in the bowel. It has been pointed out repeatedly by roentgenologists that if malignant disease is present in the head of the cecum it may easily be overlooked, whereas if it has as its site of origin a portion of the intestinal wall near the ileocecal juncture, a deformity may readily be seen. Just why anemia is present in the majority of cases of malignant lesions of the right half of the colon is not clearly understood. Perhaps the best explanations are that first, there is probably a fairly constant oozing of blood from such lesions and second, since there is always a considerable amount of infection in malignant lesions of the colon, absorption of this perverted material breaks down the erythrocytes. It has been pointed out that large malignant lesions which occur in organs other than the cecum do not produce anemia until marked extension or metastasis has occurred. Examples of this are malignant lesions of the breast, uterus, and prostate gland.

Sarcoma of the colon may be looked on as rare; however, occasionally such a lesion is encountered. In 1933 I performed an operation on a boy, aged eleven years, who had been thought to have a large appendiceal abscess. Two attempts had been made to drain the abscess and an exploratory operation had been performed elsewhere, with the idea of removing the mass. When the patient came to the clinic the lesion was about 10 cm. in diameter and filled the entire right lower portion of the abdomen. A one-stage procedure was carried out and the lesion was removed with considerable difficulty. Convalescence was somewhat stormy, but the patient was in fair condition and was able to leave the hospital three weeks after operation. Examination of the specimen by the pathologist revealed the lesion to be lymphosarcoma. Roentgen therapy was employed as an adjunct. Three years have passed and this boy remains in good health.

Roentgenographically, sarcomatous lesions of the colon present a different picture than those of a carcinomatous nature in that the latter tend to narrow the lumen of the bowel, while the sarcomatous lesion, as a rule, does not produce obstruction. A sarcoma may, however, have a tendency to produce intussusception. Sarcomatous lesions of the intestine frequently appear to be radio-sensitive and for that reason roentgenologic treatment after operation should be urged in all such cases.

In dealing with malignant lesions of the left half of the colon and the rectum it has been my observation that the following diagnoses frequently are made erroneously: appendicitis, colitis, spastic colon and adnexal

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

disease. If the lesion is a carcinoma of the rectum, the two old standbys, colitis and hemorrhoids, are too often thought of. In more than 15 per cent of cases of carcinoma of the left side of the colon, seen at The Mayo Clinic, appendectomy had been performed because the condition was considered to be the result of an acutely diseased appendix. In such instances the lesion obviously was of an obstructive type, producing marked distention of the cecum and pain in the right lower quadrant of the abdomen. In such cases the appendix, as well as the colonic segment proximal to the lesion, often is markedly distended. There is one feature, I think, which distinguishes this type of appendix from the diffusely diseased appendix; that is, in the former the lumen invariably is not obstructed and the appendix can easily be compressed, while in the diffusely diseased appendix often some type of obstruction is present and, also, a plastic exudate covers the serosa. Recently, I removed a carcinoma of the descending colon in a patient who had submitted to surgery twice in the previous six weeks because of an erroneous diagnosis. First, appendectomy had been performed, then three weeks later another exploratory operation had been carried out because it was thought that the bowel had become obstructed.

The term "colitis" covers a multitude of sins. For instance, a narrowing defect of the bowel caused by the presence of a malignant lesion may be diagnosed as a spastic colon or some type of colitis. A perforating type of lesion of the left half of the colon, particularly if the bowel is of a redundant type, is occasionally confused with adnexal disease.

I mention these possible errors in the diagnosis of carcinoma of the left half of the colon, not critically, but rather as a review of my observations, for I am cognizant of the difficulties and realize how easily a history of "cardinal symptoms" may mislead one to a diagnosis of "appendicitis" in some cases in which there is an obstructing lesion of the left half of the colon. Some years ago I performed an exploratory operation in such a case with the idea of removing the appendix. Fortunately, I found the primary lesion and performed appendicostomy instead of carrying out appendectomy. Later the lesion was removed.

Polypoid Lesions of Colon

Polypoid lesions of the colon deserve considerable attention. Although many polyps may be benign, at least in the beginning, experience at the clinic would lead us to believe that at least 50 per cent of malignant lesions of the colon are of polypoid origin. Polyps may be classified in two groups: the primary, or true, neoplasms and the polyps which may be sequels of such diseases as ulcerative colitis. It is only during the last few years that polypoid lesions of the colon have been diagnosed clinically in spite of the fact that many of them gave classical symptoms, such as frequent discharges of mucus and blood from the rectum. We owe to the roentgenologists, and to improvement in their technic, this forward step in determining the presence of hazardous lesions. In such a case, a polypoid lesion caused a considerable number of small hemorrhages from the bowel. Several roentgenographic examinations, after a barium enema had been given, did not reveal any deformity of the colon. Because of the patient's persistence and the improvement of the roentgenologist's technic, a polyp, about 2.5 cm. in diameter, was demonstrated in the descending colon. Resection was carried out and the lesion was proved to be malignant. Five years have elapsed since operation and there has not been any evidence of recurrence.

The use of the contrast method of roentgenography has enabled the well-trained roentgenologist to determine the presence of polyps even though they are no larger than 2.5 cm. This method of roentgenologic technic is fairly generally known. It is carried out by first injecting into the empty colon a barium enema. The patient is permitted to expel the medium and then the bowel is slightly distended with air. It is surprising how vividly the polyps, if they are present, can be demonstrated.

Carcinoma of the colon and rectum may be looked on as arising either from the mucus-secreting glands of the intestine or from

polypoid lesions. Occasionally some difficulty arises in determining whether a lesion of the bowel is of an inflammatory or of a malignant nature. One of the outstanding features which distinguishes one from the other is that, as a rule, a malignant lesion produces a defect which has a tendency toward concavity, while an inflammatory lesion, such as diverticulitis, will reveal a longer and more serrated shadow. The history also is of great value in determining the nature of the lesion. Blood is rarely found in the stool if a lesion is the result of diverticulitis. Signs of an acute inflammatory process are present in cases of diverticulitis. Lastly, diverticula may be demonstrated throughout the left half of the colon. Occasionally both carcinoma and diverticulosis are present. I am not of the opinion, however, that such an inflammatory process is a forerunner of malignant disease.

Carcinoma of the rectum I mention with apologies because I am sure that everyone here knows well the symptoms of this disorder. On second thought, however, one may feel justified in briefly touching on the subject since in about 25 to 30 per cent of all cases of carcinoma of the rectum hemorrhoidectomy has been performed one or more times before the true nature of the disease is discovered. A digital examination, as we have all been taught, usually will suffice to determine the presence or absence of a malignant lesion of the rectum or lower portion of the sigmoid flexure. Disease of carcinomatous nature in the rectum usually occurs as a single lesion, with a crater-like center. It may or may not involve the entire circumference of the bowel. In all such cases proctoscopic examination should be made, at which time a small bit of tissue should be removed for microscopic study. Many patients who have carcinoma of the rectum do not consult a physician until the lesion is far advanced or even irremovable. Pain is not produced by the presence of carcinoma unless the lesion invades the sphincter muscles or has become so extensive that it involves other structures in the pelvis.

I have not attempted to discuss the various types of surgical treatment which may be employed in the treatment of malignant diseases of the colon. I should like, however, to make some remarks on the surgical management of carcinoma of the rectum. Occasionally, if the lesion is small and not of too high grade of malignancy, some type of local operation may be carried out and normal or nearly normal function of the rectum may be preserved. The cases must be carefully selected and patients who are subjected to procedures such as segmental resection of the rectum or excision of polypoid types of lesions should be examined at frequent intervals after operation in order to determine whether or not recurrence has taken place. In by far the great majority of cases, rectal carcinoma is an indication for radical surgical procedure. By this I mean either radical perineal resection, which is antedated by colostomy, or combined abdominoperineal resection, which likewise necessitates the establishment of a permanent artificial anus. I believe that the latter operation carries with it a higher mortality than the so-called Kraske or perineal resection. According to experience at the clinic, the mortality of perineal resection is between 4 and 6 per cent. It is quite true that perineal resection alone is not as radical a procedure as the combined operation, but, by a carefully planned operation, all of the gland-bearing tissue can be removed from the hollow of the sacrum. One postoperative complication which may follow posterior resection of the rectum is the development of a sacral fistula. During the last three years I have attempted to overcome this annoying complication by replacing the inverted stump of the sigmoid flexure in the peritoneal cavity after amputation has been performed. In the cases in which treatment has taken this form, healing of the wound was much more rapid than when the stump was not placed in the peritoneal cavity, and only in a few instances, and then only for a short time, has there existed a sacral sinus, which means usually a fistula from the lower segment of bowel.

The prognosis of carcinoma of the colon is more favorable if the lesion is situated in the right half, and poorest if it is in the left half of the large intestine. The outlook for cure decreases with proximity of the lesion

to the more distal segments of the bowel. A careful study of 753 cases of carcinoma of the colon was made: Of these lesions, 187 were in the right half of the colon; 108 or 57.7 per cent of the patients were alive five years or more after operation. In 566 cases of carcinoma the lesion was situated in the left half of the colon including the rectum; 270 or 47.7 per cent of the patients were alive five years after operation.

My colleagues and I are still of the opinion that preoperative preparation of all patients who are to undergo operation on the large intestine is of great value. The preoperative use of intraperitoneal vaccine has, I think, undoubtedly reduced the mortality from peritonitis. A year ago Bargen and I* reviewed a large series of cases in which operation was performed before and after the advent of intraperitoneal vaccine. We found that the mortality from peritonitis had decreased 66 per cent since vaccine was employed. A mixture of colon bacilli and streptococci is used. It may be that some other type of immunization will prove to be more efficacious than that which is now used but thus far I am a firm believer that preoperative treatment, as it is now being employed, is a step toward decreasing the mortality in cases in which colonic operations are performed.

The experiences of those who are treating colonic carcinoma seem to be ample justification for the optimism that prevails concerning its curability. Furthermore, with constantly improving methods of treatment, it has become possible to give relief to patients when the disease is in the stage which was formerly considered to be hopeless.

* Dixon, C. F., and Bargen, J. A.: Vaccination Preceding Colonic Operations as Protection Against Peritonitis. New York State J. Med., 35: 1-4 (May 15) 1935.

The Diagnosis and Treatment of Arterial Disorders of the Extremities*

By MAURICE HARDGROVE, M. D.
Milwaukee

GREAT advance has been made in recent years in the study of vascular diseases of the extremities. This discussion is limited to arterial disorders, and diseases of the veins will not be mentioned.

A clinical classification has been suggested which helps in understanding the pathology of the various types of arterio-vascular diseases (chart 1). It is noted that these disorders are either functional (vasomotor) or organic in nature. The organic types are far more common than the functional types.

Diagnostic Methods

The importance of a careful general examination of the patient cannot be overemphasized. This should include measures to determine the status of the blood supply to all parts of the body. Retinal examination is made to estimate sclerosis of the smaller arteries. Accurate blood pressure study is of value and a thorough examination of the cardiovascular system, including special studies, is necessary. An electrocardiogram, blood urea, blood sugar, x-ray of the chest, etc., may suggest some vascular disorder of the viscera.

A difference in the appearance of corresponding extremities is highly suggestive of the process involved. Trophic ulcers, skin infection, local gangrene, or more extensive gangrene may be present. Pallor and cold suggest impaired arterial flow. Redness of the skin does not always indicate an increase in the blood supply, for mere dilatation of the small vessels of the skin may result from injury causing an impaired blood supply, e.g., cold, low-grade inflammation, ultraviolet radiation or mechanical injury. Local

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

From the Department of Medicine, Marquette University School of Medicine.

cyanosis is due to slowing of the blood stream relative to the oxygen requirement of the skin. Cutaneous injury, inflammation, impaired arterial inflow and obstructed venous outflow must all be considered in interpreting local color variation.

The following arteries should be included in palpating the pulsations: the brachial, ulnar, radial, femoral, popliteal, dorsalis pedis, and the posterior tibial. Anatomically, the dorsalis pedis may be absent in 4 per cent and abnormally placed in 8 per cent of normal individuals. Extravascular factors diminish the ease with which the pulsations are felt, e.g., fat, tendons, ligaments, edema, and local infection. Pulsations may be retained in the larger vessels when the smaller distal vessels are occluded; likewise, the circulation may be quite sufficient even when the large vessels cannot be easily palpated. More knowledge of the state of the larger arteries may be gained with the oscillometer. Allen's test is a reliable test for patency of the radial and ulnar arteries beyond the wrist, especially when there is a striking difference between the two hands. To test the patency of the ulnar artery, first the patient closes his hand tightly, then the examiner occludes the radial artery by pressure at the wrist, and the patient opens his hand. Patency of the ulnar artery is established if the blanched part of the hand and fingers quickly regains its pink color. The test can be applied to determine patency of the radial artery by occluding the ulnar artery.

Reactive hyperemia, a simple test of circulatory efficiency, is performed as follows: After warming, the extremity is elevated. A blood pressure cuff is applied and the pressure raised above the systolic level. The limb is lowered to a horizontal position after about four and one half minutes. Half a minute later the circulation is released. A flush reaches the digits, normally in five seconds. It reaches its maximum in fifteen seconds and fades quickly thereafter. Delay in the appearance of the flush indicates a vascular deficiency.

Inequality of the surface temperatures between symmetrical extremities is of the utmost importance, as unilateral coldness indicates a structural or vasospastic disorder of the vessels. A difference of one degree centigrade can be estimated by simple palpation. The thermo-electric couple is used for more accurate study of the skin temperature.

Chart 1

CLASSIFICATION OF ARTERIAL DISORDERS*

I. FUNCTIONAL TYPES	II. ORGANIC TYPES
A. Local Distribution.	A. Local Distribution.
1. Vasoconstricting. Raynaud's disease. Pneumatic hammer disease (angina pectoris) 2. Vasodilating. Erythromelalgia. Rubor with neuritis, etc.	Occlusive arteriosclerotic disease (coronary sclerosis) Thrombo-angiitis obliterans Aneurysm Arteriovenous communication Arteritis; periarteritis nodosa Coarctation of the aorta Thrombosis: embolism
B. General Distribution.	B. General Distribution.
1. Vasconstricting. Essential hypertension. 2. Vasodilating. Essential hypotension.	Arteriosclerosis

*Modified from Brown.[1]

The degree and extent of arterial calcification can be demonstrated by use of the x-ray. It must be remembered that calcification does not mean that the lumen of the vessel is inadequate; nor does it indicate that a sufficient collateral supply is not present. A solution of thorium dioxide is a satisfactory opaque substance which, when injected into the artery, will give a shadow on the roentgenogram. This latter procedure is of greatest value in visualizing arteriovenous communications, aneurysms, and occasionally in gangrene to aid in selecting the level of amputation.

Histamine hydrochloride (0.1 cc. of 1:1000 solution) can be used as a test of the available flow of blood to the skin. A local wheal and flare normally appear in five minutes after the solution is injected intracutaneously. Absence of local reaction indicates an inadequate vascular response. This is of some assistance in locating the proper site for amputation.

Various methods of releasing vascular tone have been used in studying the degree of vasospasm present. The most common and efficient method is that introduced by Brown, which increases the internal production of body heat by typhoid vaccine and thus secures marked peripheral vasodilatation.* Application of external heat, a warm water bath, or a heat cabinet, has also been used for this purpose. Release of vascular tone by temporary interruption of the sympathetic nerve pathways to an extremity can be accomplished either by spinal or general anesthesia, or peripheral nerve block. Under anesthesia, the normal skin temperature of the first toe is 31.5 degrees C. when the room temperature is 20 degrees C.

A study of the oxygen content of the venous blood is important in the diagnosis of arteriovenous communications and erythromelalgia.

Vasomotor Disorders

Raynaud's disease is a primary vasospastic disorder involving the hands, the feet, or both extremities. Trophic changes, (e.g., ulcer and gangrene) when they occur, are superficial and the involvement is symmetrical. Intermittent attacks of color change occur in the digits, which are brought on by nervousness or exposure to cold, and are relieved by warmth. The color is at first blue and then changes to red as recovery from the attack takes place. The peripheral arteries remain patent, though late in the disease organic changes take place within the arterial walls. The asthenic woman of adult life seems to be predisposed to the disease and it is seldom seen in the male. A small percentage of the cases develop arthritic joint or sclerodermic skin changes. Excellent results are obtained if sympathetic ganglionectomy is performed before trophic changes occur. Removal of the first cervical, and the first and second thoracic ganglia, through a posterior approach, is indicated for the upper extremities. Removal of the second, third and fourth lumbar ganglia is accomplished through the abdominal route for the lower extremities.

There is a vasospastic disturbance occurring in the hands of most stonecutters who use the air hammer. This condition is called pneumatic hammer disease.[2,3] It consists of blanching and numbness of certain fingers when exposed to low temperatures. The stonecutter's hammer is light (2 to 5 lbs.) and delivers 3,000 strokes a minute. The fingers in close contact with the chisel are those most commonly affected, for they receive the brunt of the continuous impacts. Attacks of blanching occur when the hand is exposed to the cold and are caused by a spasm of the arteries leading to the whitened area. The fingers involved are numb, clumsy, and painful while the attack lasts. Relief can be obtained by rubbing the fingers or placing the hand in warm water. The arterial pulsations are normal. Apparently serious secondary trophic changes are rare, although a case in which gangrene of a finger occurred has been reported. The fingers of men who have not used the tool for as long as ten years may still turn white in cold weather. This may make it impossible for them to take up a skilled trade which exposes their hands to the cold.

* Vasomotor index: subtract the increase in oral temperature from the increase in peripheral temperature. Divide the result by the increase in oral temperature. Normal V.I. equals 2 to 10.

Erythromelalgia is a local vasodilating disease first described by Weir Mitchell. It is a disorder in which there is bilateral burning pain in the extremities, aggravated by heat and exercise, and relieved by rest, cold and elevation. The lower extremities are most frequently affected. During an attack the skin temperature of the feet is high (33 to 34 degrees C.), the superficial veins are distended, occasionally pulsate, and contain a high percentage of oxygen. There is no remedy for the condition other than temporary relief.

"Red, painful feet" are also seen in other diseases, for example, thrombo-angiitis obliterans, gout, low-grade cellulitis, and temporarily during the recovery stage of a Raynaud's attack. Rubor is seen in the extremities of patients with severe peripheral neuritis. Cases of polycythemia vera commonly show local vasodilatation accompanied by heat and flushing of the extremities. Certain subjects react abnormally to cold, e.g., chilblains. Sharp, systemic reactions similar to a histamine reaction (syncope, flushed face, tachycardia, drop in blood pressure, and increase in gastric acids) occur in some of these individuals. Burning paresthesia, in which there is no objective phenomenon, is often the complaint of elderly arteriosclerotic subjects. It probably originates in the central nervous system on an arteriosclerotic basis and it frequently disappears spontaneously.

Organic Disorders

Arteriosclerosis is a general vascular disease of organic nature. Calcification of the arteries *per se* is not of clinical significance. However, various symptoms and signs develop with local sclerosis and occlusion of the peripheral arteries. Pain in the legs while walking, which is relieved by rest, is called intermittent claudication. There is a close analogy between this pain and the pain noted in coronary sclerosis, which is due presumably to anoxemia of the heart muscle. Slow occlusion tends to develop sufficient collateral circulation to supply the tissues and to prevent gangrene.

In addition to closure of the artery by the sclerotic process, there is a tendency for the thickened vessel to form thrombi within its lumen. Complete arterial occlusion and gangrene of the part may occur with formation of the thrombus.* Local injury to the vessel walls may also cause thrombus formation. A condition called thrombophilia has recently been described, in which there are measurable changes in the factors which cause coagulation of the blood.[4]

Embolic closure of a peripheral artery causes pain and blanching in the part supplied by the occluded artery. Pulsation is absent. These emboli are commonly of cardiac origin. Recovery depends on the development of collateral circulation or the removal of the obstruction. The part must be kept warm, dependent, and the pain controlled by opiates. Intravenous injection of one half grain (0.032 gm.) of papaverine hydrochloride,[5] to release the accompanying spasm of collateral arteries has been encouraged. Intermittent negative and positive pressure should be used if a machine is available. Early surgical removal of the embolus gives good results in 40 per cent of the cases.[6]

Thrombo-angiitis obliterans, Buerger's disease, was originally thought to be a disease occurring mostly in Hebrews, but as more cases were reported this was not found to be true. None have been reported in the negro. It begins as a periarteritis or superficial phlebitis (40 per cent). Characteristically the arteries develop thrombi, which eventually occlude all the peripheral arteries. Relapses are common. The etiology is unknown. Streptoccoci have been isolated from the involved arteries in a few cases. Over 90 per cent of the cases are males and are excessive tobacco smokers. It also affects those who have never used tobacco.

Fundamental procedures (A, B, C) for increasing circulation to the extremities are carried out by the patient himself if thrombo-angiitis obliterans is seen early. The same applies to early occlusions caused by arteriosclerosis. (A) Postural exercises are done twice a day. The patient lies on

* When this occurs in the uncontrolled diabetic patient the prognosis is grave. Successful management depends on the cooperative efforts of the internist and the surgeon.

his back and elevates his feet to a vertical position for one minute. Then he sits on the edge of the bed with his feet hanging down for one minute. After this he extends his legs in a horizontal position for one minute. These three maneuvers are repeated ten times. (B) Contrast baths are taken twice daily. Two containers, each large enough to immerse both feet to the midleg, are used. The cold water in one should be from 40 to 50 degrees F., and the hot water in the other should be from 102 to 105 degrees F. The feet are first put into the hot water for one minute, then into the cold water for thirty seconds, and this is repeated ten times. (C) The extremity is massaged twice a day using lanolin (wool fat) as a lubricant.

Rest is important, as is adequate warmth to the part. Electric pads or hot water bottles should not be used because of the danger of burning the skin in cases where the sensation is diminished. Tobacco is best avoided. Care of the toe-nails is important and great care should be taken never to injure the skin by strong disinfectants or ointments. Intermittent claudication of either arteriosclerosis or thrombo-angiitis obliterans may be slightly improved through the use of tissue extracts.* Evidently this pain is relieved by supplying some metabolic substance in which the ischemic muscle is deficient.

Hospitalization is necessary if the occlusive process is more advanced. The electric baker (105 degrees F.) with a cradle is used to keep the limb warm. Vaccine (nonspecific protein, e.g., typhoid) therapy is useful in increasing the blood supply to the limbs. Intermittent negative and positive pressure is a supplementary form of treatment of limited value. Alcohol (15 cc.) taken by mouth several times daily often relieves pain and causes some vasodilatation. Intravenous hypertonic saline sometimes gives pain relief.

Sympathectomy is rarely advisable if the disturbance is caused by arteriosclerosis, but in early thrombo-angiitis obliterans it is occasionally warranted as a measure to protect against the development of gangrene due to further arterial closure or injury to the foot. Treatment is becoming more conservative. Spontaneous amputation of the digits may occur as the result of gangrene and necrosis. Surgical removal of an extremity, after careful analysis of the patient and the limb, is occasionally necessary because of extensive gangrene or excessive pain. Seventy-five per cent of the legs removed below the knee heal satisfactorily. The arm and hand blood vessels are affected in the same way as those of the legs in nearly 50 per cent of the cases. The same care and treatment should be given to the arms as to the lower extremities, although the ulcerations and gangrene are usually less severe.

Aneurysms occurring in arteries of the extremities are rare, but may occur as the result of trauma or arteriosclerotic weakening of the vessel wall. The symptoms are essentially those caused by pressure on contiguous structures. The treatment is surgical removal of the aneurysm and is often successful.

Arteriovenous communications are either congenital or acquired. They are often multiple in the first form. There is an increase of temperature on the side of lesion. The affected extremity is likely to be larger than the unaffected one. A thrill is common, more so in the acquired than in the congenital type. The history of injury, with signs of venous dilatation, make the diagnosis of the acquired type simple. Arteriography (thorium dioxide sol) done with care and accuracy may show the anastomosis between the artery and the vein. A study of oxygen concentration will show the venous blood to have a high amount, comparable to that of the arterial blood. Pressure closure of the fistula often causes a sharp drop in the pulse rate (Branham's sign). Rubber bandages to increase the venous pressure will force the blood into the capillaries. The treatment in some cases is surgical, the indications are an easy approach and early cardiac failure.

Cases of disseminating and localized arteritis have been reported. Many are closely associated with the "rheumatic group" of

* Myoston or pancreatic tissue extract.[7]

disorders, especially when found in children. Periarteritis nodosa is an inflammatory disease of the small arteries, the diagnosis of which is usually made at postmortem. However, with unexplained fever, polymyositis, polyneuritis, eosinophilia and subcutaneous nodules, the diagnosis is suggested during life.[8] A biopsy confirms the diagnosis in suspicious cases. Curative treatment is unknown. Foci of infection should be removed as in any chronic inflammatory disease.

Coarctation of the aorta is a condition in which there is a congenital stenosis of the isthmus. Collateral circulation is carried on through the anastomosis between the subclavian and the intercostal vessels. Reduced exercise tolerance of the lower extremities, a high brachial systolic pressure and the absence or diminution of pulsation in the femoral arteries, may indicate this disorder. There is no known treatment other than that directed toward the avoidance of cardiac failure.

An attempt has been made toward an etiological classification of arterial disorders (chart 2). Further investigation may reclassify and add new disorders. Essential hypotension, essential hypertension, angina pectoris and coronary sclerosis have been included in the charts, but have not been discussed in this paper.

Conclusion

Diagnostic procedures for identifying arterial disorders of the extremities have been discussed and the treatment of these diseases has been outlined.

Chart 2

TENTATIVE ETIOLOGICAL CLASSIFICATION OF ARTERIAL DISEASES

INFLAMMATORY	DEGENERATIVE
Thrombo-angiitis obliterans Arteritis—periarteritis nodosa	Occlusive arteriosclerotic disease (coronary sclerosis) Arteriosclerosis
NEUROGENIC	**CONGENITAL**
Raynaud's disease (angina pectoris) Erythromelalgia Essential hypertension Essential hypotension	Arteriovenous communication Coarctation of the aorta
	ACQUIRED
	Pneumatic hammer disease Arteriovenous communication

Aneurysms may occur in all groups except the neurogenic. Thrombus formation is common in both the inflammatory and degenerative groups, as well as in aneurysmal dilatations.

BIBLIOGRAPHY

1. Brown, G. E.: Diseases of the Peripheral Arteries: Classification, Diagnosis and Treatment. Pennsylvania M. J., 36: 305 (Feb.) 1933.
2. Hardgrove, Maurice, and Barker, N. W.: Pneumatic Hammer Disease: A Vasospastic Disturbance of the Hands in Stonecutters. Proc. Staff Meet., Mayo Clin., 8: 345 (June 7) 1933.
3. Hunt, J. H.: The Raynaud Phenomena: A Critical Review. Quart. J. Med., 5: 399 (July) 1936.
4. Nygaard, K. K., and Brown, G. E.: Essential Thrombophilia (Thrombosing Disease); Report of Five Cases. Proc. Staff Meet., Mayo Clin., 10: 13-15 (Jan. 2) 1935.
5. Denk, W.: Zur Behandlung der Arteriellen Embolie. München med. Wchnschr., 81: 437-439 (March 23) 1934.
6. de Takats, Geza: Acute Arterio-occlusions of the Extremities. Am. J. Surg., 33: 60 (July) 1936.
7. Roth, Grace, and Brown, G. E.: Effect of Tissue Extract on Intermittent Claudication. M. Clin. North America, 18: 609-612 (Sept.) 1934.
8. Middleton, W. S., and McCarter, J. C.: The Diagnosis of Periarteritis Nodosa. Am. J. M. Sc., 190: 291 (Sept.) 1935.

Note: George E. Brown, who died during the past year, was a pioneer in the field of peripheral vascular diseases. Much of our knowledge in the diagnosis and treatment of arterial disorders is the result of his brilliant research.

DISCUSSION

Dr. S. A. Morton (Milwaukee): There is one phase of Dr. Hardgrove's paper that I wish partially to discuss and that is the so-called "passive vascular exercise treatment" of peripheral arterial disease.

There has been a good deal of publicity regarding this for the past year and now our journals are containing advertisements recommending the use of the various makes of machines.

Passive vascular exercise is the application of suction and pressure alternately to the affected member. The leg is put in a glass boot which is sealed to the thigh with a rubber cuff-like arrangement and the boot connected with a machine which delivers alternately pressure and suction.

For the past eighteen months I have been using these machines and I feel that I have treated enough patients to evaluate my own experience with this method.

My experience has been disappointing and I have not been able to reproduce the results obtained by Hermann and Reid, who have been perhaps the most enthusiastic exponents of this method. In the few cases of acute arterial occlusion that I have had, the results have been good. I got the patients within a few hours after the occlusion had occurred and they were treated constantly. After several hours, color and warmth came back to the cold, waxy extremities and the legs were saved.

It is said to be good in freezing but I have no cases of acute frost-bite. The great majority of the cases that I have had have been painful feet with impending gangrene due to senile arteriosclerosis. These cases are very common but I only accepted the more favorable ones for treatment. In this group my results were very disappointing; in some fifty odd cases of this type not more than four or five received any benefit and in these four or five it was difficult to evaluate how much the improvement was due to mechanical methods and how much to the other treatment that was employed.

The treatment requires a lot from both the patient and the doctor. At least eighty to a hundred hours must be given before results can be expected. Most of these patients are quite old and the difficulty of getting these painful feet into the "boots" and keeping them there for an hour or so is more than many of these old people can stand.

I have had these people get worse and develop gangrene in spite of the most careful and extensive treatment. I feel that a method which requires so much from the patient, and which shows, in my experience, so few beneficial results, is not for general adoption.

In the diabetic patient with acutal or impending gangrene my results have been better, but here it is difficult to evaluate the effect of the vascular exercise as the usual other methods were employed at the same time.

True Buerger's disease, as Dr. Hardgrove has emphasized, is rare. In the few cases that I have had, the effect of the passive vascular exercise machine has been very slight.

My experience with this new method of mechanically exercising the vascular structures has been disappointing. I do not believe that these machines have a wide enough application to warrant their purchase by individual physicians. I do feel that they may be of great value in cases of acute arterial occlusion or of acute frost-bite and of some value in certain rare selected cases of arteriosclerosis with or without diabetes. For that reason the larger hospitals might require them.

I would like to emphasize that I have been giving you my own experiences with these machines. The fault may have been with me, not with the method. Others may report better results, but there were two reports in the Journal of the American Medical Association within the past nine months in which the results were about the same as mine.

I think that Dr. Hardgrove's paper is a splendid epitome of the diagnosis and treatment of these difficult cases and I feel very grateful in being asked to elaborate a little on the new mechanical method of treatment of these conditions.

Obtaining Blood for Serology

By W. F. LORENZ, M. D.*
Madison

THE physician in general practice is the one person most able to cope successfully with the various problems presented by syphilis. Any plan to discover the reservoir of infection in the general population depends entirely upon his cooperation. One method of approach to achieve this is to take blood tests on as many persons as possible. Such a practice carried on over a period of two or three years and in the entire State will very likely result in finding many persons with a syphilitic infection of which they have no knowledge. Anticipating some such effort, I am preparing a series of articles designed to put into the physician's hands all the information, from a laboratory standpoint, that may be of service to him and of

* Wisconsin Psychiatric Institute.

assistance to the laboratory. In the present article the procedure of obtaining usable blood specimens for practically any serological examination will be discussed.

Obtaining a blood sample is such an obviously simple task as to make one doubt the need of detailed information. But, dealing as we do with over 2,500 active practitioners, the need of following certain uniform methods is important in carrying out a prompt and efficient laboratory service. Almost daily we receive samples that are not usable because the physician has neglected some minor detail, the effect of which results in an unsatisfactory laboratory test and disappointment to the clinician.

I will describe a method that practically insures a satisfactory laboratory test. There are other methods of obtaining blood, and when a specimen need not be shipped by mail such a technique may be even preferable but, considering the manner in which our serological service is being rendered to the medical profession, I believe that following the method of taking blood described in this communication will result in mutual satisfaction.

Instruments, Etc.

It is suggested that an all glass 5 cc. syringe be used as the most convenient method of obtaining a blood specimen. The syringe should be sterile on its inner surfaces at least. This is desirable in order to avoid contaminating the blood. Bacteriological growth in blood will frequently result in anticomplementary properties.

Dry sterilization or boiling can be used, but in either event it is very desirable to wet the inside of the syringe with some sterile normal saline solution before it is used. The purpose of this is to prevent spontaneous hemolysis in the blood specimen. The needle must be sterile and approximately of 20 gauge caliber. The next step in the procedure is the selection of a suitable vein. In the males, generally, and usually in the females, the veins at the bend of the elbow offer the best site to obtain blood. In most cases these veins are readily visible. With slight superficial constriction above the elbow these vessels will become engorged and stand out prominently. However, it is not always the prominent vein that serves best, but the vein that is fairly well fixed by deeper structures. A superficial but prominent vein may roll aside as the overlying skin is punctured. A vein that is deeply attached will remain in place. The direction of venae puncture should be in the longitudinal axis of the vessel, therefore it is necessary to take a position in relation to the direction of the vein that permits carrying out this procedure.

The veins that are not readily visible may still be easily palpated by constriction and release above the elbow. The filling and emptying of such a vein is detectable.

Having decided on a certain vein to be punctured, the next step is cleansing the area of overlying skin. Alcohol or tincture of iodine followed by alcohol will sterilize sufficiently to safeguard against infection from the puncture.

A tourniquet is always useful. This should be a soft rubber tube applied lightly with merely sufficient pressure to obstruct venous return. Greater pressure will defeat the purpose to bring about the maximum amount of venous engorgement.

The patient may be seated with the arm resting on a table, or the recumbent position may be used to advantage in some instances. For children, generally, and also in the case of females, the recumbent position permits the arm to hang dependent for a short period and thereby cause the veins to fill up, becoming more visible or palpable. Fainting may sometimes occur, and if the patient is recumbent this is largely prevented. Furthermore, the subject is not, as a rule, watching the puncture and is not as likely to jerk away the arm.

Having decided on a certain vein, the skin having been cleansed, the tourniquet is lightly applied. The next step is very important. The arm should be grasped just below the elbow, the thumb uppermost, and the skin should be held at a point approximately two inches below the proposed site of puncture. The pressure of the thumb holding the skin should be sufficient to also fix the underlying vein. By means of this pressure the puncture made through the skin can

also, by a slightly deeper thrust, include the anterior wall of the underlying vein. If the skin is not held it moves, puckers up, and the vein is more or less lost.

In puncturing the skin and the vein it is best to have the bevel or flat surface of the needle point uppermost. By attaching the needle with the bevel in the same plane with the graduations on the barrel of the syringe, the latter will serve as a guide to maintain this position. The next step is the puncture. That should be made with one fairly rapid thrust passing through the skin and the anterior wall of the vessel in one movement. Blood becomes visible in the neck of the syringe at once. A smooth-working plunger, slightly wet with saline, offers practically no resistance to venous pressure. Therefore, one can permit the syringe to fill slowly and thus no manipulation of the plunger is required. If the plunger does not move, then a slight amount of aspiration is necessary. Approximately 4 to 5 cc. of blood should be drawn. This is quite sufficient for our serological examination. The next step is to remove the tourniquet. This must be done before the needle is withdrawn from the vein. After the tourniquet has been removed, the operator may take a small piece of sterile gauze and with it apply pressure directly over the site of puncture and while the pressure is being applied the needle is withdrawn. It is well to continue this pressure with a little gentle massage. The patient or an assistant can continue this local pressure for several minutes.

The blood specimen should be quite promptly delivered into a sterile homeopathic vial, corked and set aside.

The removal of the tourniquet before withdrawing the needle and the application of pressure at the time of withdrawal of the needle, and subsequently applied, is necessary to avoid leakage of blood into the subcutaneous tissue. If this technique is followed, no visible hemorrhage occurs and usually not more than a small drop will appear at the site of skin puncture. A final dressing, consisting of a small pad of gauze held in place by adhesive, is all that is necessary.

The next important step is to label the vial. This should be done at once. The physician can use the patient's name or any other means of identification he may choose. The specimen will clot better and be in a more satisfactory condition after shipment through the mails if the vial is of the type we send out. A vial of larger dimensions causes the formation of a larger clot which is more easily shaken up during shipment and therefore more likely to result in a hemolyzed specimen. The vial may be kept at room temperature for approximately one hour and then shipped in one of our mailing tubes. If, for any reason, it must be held over for twenty-four hours or more, the specimen should be placed in a refrigerator, or at least in a cool or cold place.

Selection of Vein

In young children and adults generally, the veins on the anterior aspect of the elbow will be found most usable and in such cases the method of venae puncture described is suggested as a good technique. At times, particularly in women, these veins may not be visible and can only be found by palpation. Sometimes this method fails to discover a sufficiently large underlying vein. In such cases it is necessary to look elsewhere and suitable veins can be found on the dorsum of the hand, the anterior aspects of the foot and about the maleoli. But in all such cases the veins are usually small, quite superficial and unfixed by deeper attachment. Such veins tend to roll away under the needle as the skin is punctured. They are also prone to collapse and the puncturing needle may pass through both walls of the vessel. In general it will be found best to use, in such instances, a needle of smaller caliber and with a sharp point.

In very young children, I am advised by Dr. John E. Gonce, that puncture of the external jugular is the vein of choice. In some instances, the rather prominent scalp veins, particularly over the frontal region, may also serve as a source of blood. The puncture of the longitudinal sinus through an unclosed fontanel is rarely used in the department of pediatrics at the Wisconsin State General Hospital.

The colored plates are shown merely to illustrate the position of the hands, particularly the thumb, in relation to the site of puncture of veins at the elbow, and the other plate illustrates the use of pressure with a gauze pad over the needle while still in the vein and before it is withdrawn. Note that the tourniquet has been removed. The other two colored plates, kindly posed for by Dr. L. M. Simonson, illustrate the technique of puncturing the external jugular in a seven-month-old child, and also the puncturing of a scalp vein.

A blood specimen can be collected from the umbilical cord. The best practice is to use the severed placental end and collect 4 to 5 cc. directly into the vial. Blood that is collected from drainage basins is frequently unsatisfactory. Blood collected from the umbilical cord will usually permit of a satisfactory laboratory test. At many hospitals it is a routine practice to collect such specimens and obtain a laboratory test.

A good specimen for complement fixation can be practically assured by shipping serum alone instead of the whole clotted blood. But, to do this, it is necessary to use care in pipetting the serum from the clotted blood. The following method is suggested if a physician wishes to send serum alone. The blood is drawn in the manner already described and placed in a small vial or test tube. It should be set aside at room temperature for about one or two hours at the end of which time the clot will be well formed and clear serum will be visible around and above the clot. At times the clot adheres to the side of the tube. It can be freed by gently introducing a sterile glass rod or wooden applicator. If a centrifuge is available the specimen should be swung for a few minutes. The clear serum will then be above the clot and is much more easily collected. For this purpose a sterile medicine dropper or a small pipette with a rubber nipple can be used. The serum must be aspirated with care so as to prevent disturbance of the extra corpuscles that are usually precipitated at the bottom of the specimen. The collected serum is then transferred to one of the small homeopathic vials supplied by our laboratory for shipment to the Institute. The caution to be observed in this entire procedure is to avoid disturbing the clot and avoid contamination. The serum specimen can be kept in an icebox for several days without affecting in any manner its use in a complement fixation procedure.

A good specimen will, in the course of two or three hours, show a firm and contracted clot with clear, straw-colored serum above and around the clot. When such a specimen is received at the laboratory it is centrifuged and the clear serum is readily available as a supernatant fluid.

Under some circumstances, the blood specimens become unusable for a complement fixation test. This occurs most frequently from hemolysis that may develop from a variety of causes. In some instances the corpuscles are very fragile and a small amount of disturbance causes a liberation of the hemoglobin. In other cases apparently the clot itself appears to lack firmness and even slight agitation produces hemolysis. If the syringe contains a small amount of water from sterilization a considerable number of corpuscles will lake and thus cause a hemolyzed specimen. If alcohol is used to sterilize the syringe it is particularly likely to result in a poor blood specimen. The use of normal saline is suggested after sterilizing the syringe to prevent poor specimens from these causes.

Hemolyzed Specimens

By far the most frequent cause for hemolyzed specimens is the alternating heat and cold encountered in the mail. This naturally occurs much more frequently in the winter season. Such specimens are very markedly hemolyzed. They give the appearance of a viscid, purplish liquid without any contained clot. Such specimens are invariably anticomplementary and wholly unusable in any serological procedure.

Specimens that are but slightly hemolyzed may be usable and even though partially anticomplementary can be satisfactorily examined with the method of complement fixation we employ.

The term "anticomplementary" has no clinical significance whatsoever. It is purely

a serological term meaning that the serum itself, without any other factor added, destroys or inhibits the action of complement from fresh guinea pig serum. The only thing to do in cases of anticomplementary bloods is to send another specimen.

Anticomplementary properties are found in other than hemolyzed specimens. Occasionally a perfectly fine appearing serum obtained from a blood specimen taken under the best of conditions is still anticomplementary when tested. It is not unusual to have this phenomenon persist in the same patient for weeks at a time. I have never been able to correlate this occasional serum behavior with any particular disease or condition. When it occurs both the clinician and laboratory are helpless. We attempt a second test by heating such a serum for one half hour at fifty-six degrees centigrade; occasionally this results in a satisfactory test but it means additional time and effort. At times I fear the clinician has criticized the laboratory for repeated anticomplementary reports on the same person. I also suspect that the laboratory has been charged with making this report as a mere convenience to cover up an error or even avoid making the test. However, any such practice would be of no possible benefit to the laboratory. Before a blood can be determined to be anticomplementary it has already undergone the full procedure of the test. The anticomplementary property is detectable only at the end of the entire test. The unsatisfactory result which is reported as such merely means that, as a rule, another specimen is submitted and a later test required.

Some blood specimens will show a markedly milky appearance of the serum after the blood has clotted. For many years the original suggestion that such bloods contain fat has been accepted without any further investigation. It has been more or less a practice for the serologist to advise the clinician to take blood at a fasting period, or at least not shortly after a meal. Recently, we undertook to study these bloods and conclude that in some individuals a fatty meal will result in a milky serum about two or three hours after feeding, but it is not consistently present in every person. In fact, the frequency of such a milky serum even after a very large fat meal varies greatly in different individuals and at different times in the same individual. Its occurrence does not appear to be associated with any disease. As these blood specimens clot there appears to be a larger number of red corpuscles that remain free and are not included in the clot formation. Such free corpuscles are much more easily damaged by disturbing the specimen. Frequently hemolysis will result and I now believe that some of the hemolyzed specimens we receive arise from this cause alone. I would, therefore, reiterate the suggestion that blood specimens be taken just before a meal if this is at all convenient.

Data Sheet

Being certain that the vial has been properly labelled, the data sheet should then be made out, using care that the same name or symbol or identification mark carried on the label is also placed on the data sheet. Failure to have the label on the bottle conform to that on the data sheet leads to errors.

The physician's name must be on the data sheet, and likewise, his address, or whatever address he wishes to have the report sent to. In many instances, instead of a physician's name we find the name of a hospital or an institution on the data sheet. Under such circumstances, we address the report to the hospital or institution. Unfortunately, this has resulted in errors for which we were in no way responsible. Not infrequently the hospital personnel has either mislaid the report or failed to enter the result on the patient's record, or through some other oversight the clinician did not get the information he sought. I, personally, question the advisability of our continuing to report results to a hospital. I think it would be much better if a physician's name appeared on every data sheet, and we would then mail the report to the physician and to whatever address appeared on the blank.

It would be helpful in our statistical studies to have the physician indicate whether the examination is requested as a routine procedure, whether it deals with the

eugenics law, or mention the clinical diagnosis if the same has been made. In any event, it would be extremely helpful to us if the physician would indicate whether or not a previous positive test was obtained in the patient. Beginning with 1937, I am trying to collect accurate data on the actual number of persons we examine, and my chief concern is to note the number of positive specimens that are duplicates in a single case. I, therefore, urge that the data sheet shows whether or not a previous examination has been made and whether this was negative or positive at any time in the past. This need be nothing more than a simple statement such as, "previously positive"—"formerly positive"—"formerly negative," or something to that effect. Such information on the data sheet would not, under any circumstances, influence us in reporting the reaction we may find in the specimen that is being examined. Our sole purpose is to keep a check on repeated positive examinations in the same individual.

It has been our practice to examine every blood on the day it is received. Specimens received in the morning mail, unless more than 300, which is practically the upper limit of our present facilities, are immediately prepared for testing by centrifugation and then tested in the course of three hours, after which the results are read. The reports are typewritten in the early afternoon and, almost without exception, mailed at about 4:30 p. m.

Specimens received in the afternoon mail, if not in excess of the 300 that can be handled at a time, are examined on the same afternoon, the results are read about 4:00 o'clock and the typewritten reports are placed in the mail at about 5:30 p. m. We thus attempt to handle all specimens on the day received; that is, make the examination and mail the report.

Without doubt, many physicians have condemned us because we seemed to be niggardly in our practice of sending containers for blood specimens. Viewed from the angle of the physician, such criticism seems fully justified, but when viewed from our angle it is another story. It has been absolutely necessary for us to economize at every turn, even to the extent of cutting our data sheet in half and reducing the amount of printing and thereby eliminating a certain amount of direction and information that was previously sent to the physician. By many devices we have reduced the cost of making a test to approximately four cents. In that, the cost of a homeopathic vial is no small item. When we send out 600 to 700 a day and get back an average of about 400 it means a steady daily loss that our operating funds will not stand. In order to be perfectly fair, we began the practice of recording the number of mailing packages and vials sent out to a physician and then checking off these as they come back to the laboratory. When approximately two thirds of the number sent out to a physician have reappeared we replace his stock.

Many of our mailing packages and containers are used for other purposes. In the course of a week almost a bushel basket filled with our vials and mailing packages are collected from the Hygienic Laboratory. We also know of many blood specimens sent by physicians to other laboratories in containers supplied by us. The medical profession can help us very much by conserving this property and using it only for the purpose intended.

Finally, the physician can avoid another cause for dissatisfaction if care is used to properly pack the homeopathic vial in our regular mailing tubes. When a specimen is carelessly packed or shipped in some other device, the bottle may be broken during shipment. Not only is the specimen lost, but the postal authorities have complained very strenuously at times because the leaking blood stained in a very unsightly manner other first class mail. It is urged that the physician prevent, as far as possible, further accidents of this nature, otherwise it is conceivable that the postal authorities may refuse entirely to accept blood and such like material for shipment through the mail.

The Diagnosis of Primary Syphilis

By W. D. STOVALL, M. D.
State Laboratory of Hygiene, Madison

THE initial or primary sore of syphilis is the chancre. The diagnosis of the chancre is a laboratory procedure. The physical characteristics of chancre are described in clinical textbooks but they are not reliable for diagnosis. There is no method other than dark-field examination which will certainly differentiate between chancre, chancroid, and herpes. This differentiation is difficult by any other method because the primary lesion of syphilis may be a small abrasion or a painful unindurated area rather than a typical indurated ulcer described for the hunterian chancre. The usual methods of clinical examination, feeling or looking at the ulcer, do not afford a certain diagnosis. If chancres are going to be diagnosed with certainty in all cases, every genital sore, in either the male or female, and every extragenital sore which fails to heal promptly without syphilitic medication should be regarded with suspicion and dark-field examination made.

The first opportunity to diagnose syphilis and the time at which treatment offers the greatest success is in the primary stage. The dark-field examination affords a diagnosis before the Wassermann is positive. By this method syphilis can be diagnosed within eight to ten days after the disease is contracted. At this time 90 to 95 per cent of all chancres will give a positive dark-field examination. While it is desirable to diagnose the ulcer in the first ten days to two weeks, the dark-field offers a means of diagnosis in 80 per cent of the untreated primary sores through the fifth week. Thereafter the percentage of positive dark-field examinations of undoubted chancres declines rapidly while the percentage of positive Wassermanns rises. The administration of any of the arsenical drugs used in the treatment of syphilis interfere with the test. One injection of these compounds will sterilize the lesion within a few hours so far as dark-field examination is concerned. It is one of the necessary qualifications that no arsenicals be administered, and no antiseptics be used on the sore prior to the examination. If a satisfactory specimen is obtained and the examination is carried out by experts, 90 to 95 per cent of all cases of primary syphilis can be diagnosed within the first eight to ten days of the infection. The importance of diagnosing syphilis in the primary stage is apparent when we consider that a cure can be effected in 100 per cent of the cases if adequate treatment is initiated before the Wassermann becomes positive; while if the treatment is delayed until a positive Wassermann is obtained the probabilities of cure are reduced to 80 per cent, and as the disease passes on into later syphilis the probabilities of cure decline rapidly.

The physicians in the State can secure this kind of examination for their patients either by sending them to a local laboratory, clinic, hospital or office where a physician is in charge who is expert in the use of the dark-field microscope, or by collecting the specimen in special apparatus that is provided for that purpose and sending it to the State Laboratory of Hygiene. It is better to have the examination made locally if the facility is available. It must be emphasized that the examination cannot be left in the hands of unexperienced technicians. It should be done by a physician who is experienced in carrying out this test. In those localities where the facility is not available, the substitute method of collecting the specimen and sending it to the State Laboratory of Hygiene is satisfactory.

Specimen Containers

1. A mailing case.
2. A small screw-cap vial in which there are two capillary pipettes (two and one half inches in length). These pipettes are similar to those used in dispensing smallpox vaccine.

3. A small, colored vial completely filled with a mixture of equal parts of vaseline and paraffin.
4. A data sheet which gives full directions for collecting the specimen.
5. A gummed label directed to the State Laboratory of Hygiene to be used in returning the specimen to the laboratory.

This outfit (Fig. 1, A and B) can be obtained from the laboratory on request.

Directions for Collecting the Specimen

A. Preparation of the lesion.

1. Patient must not have had previous medication.
2. Local treatment such as antiseptics interfere with the test. The spirochetes in the sore are quite resistant to the effect of local antiseptics. However, if such have been used, the sore should be cleaned and hot boric acid compresses used for twenty-four hours at which time a specimen may be collected.

Fig. 1-A

3. Wash the lesion with sterile physiological salt solution (1 gram of salt to a pint of water). This is accomplished with either sterile gauze or a piece of absorbent cotton, preferably the gauze. After the lesion is cleaned it should be rubbed (along the edge) firmly but gently with a piece of sterile gauze. This causes serum containing a few blood cells to exude.

This operation is slightly painful. The pain can be relieved if a small compress of 2 per cent novocain is applied for a few moments before cleaning the sore and before it is rubbed with gauze. Rubbing with the gauze will cause bleeding. If much blood is in the specimen, it is not satisfactory for examination. If the first serum that exudes contains very many blood cells it must be wiped away. After the excess blood has been wiped away, in a few minutes, serum will exude that is free from blood or nearly free. A few blood cells do not interfere with the examination. If the serum does not exude, the sore may be grasped with the gloved fingers and gently compressed until sufficient serum is secured to permit the filling of the capillary tubes.

Fig. 1-B

The capillary tubes must be filled or nearly so. If enough serum is not obtained to fill the tubes then they should be broken off to within a short distance of the serum. This is important since the presence of much air (oxygen) interferes with the life of the spirochetes in the serum.

B. Filling the Capillary Tubes

The capillary tubes (fig. 2) must be filled readily. This is accomplished by holding the tube in a horizontal position and bringing it in contact with the drops of serum that exude from the sore. If it is held vertically, it will not fill.

Fig. 2

C. Sealing the Capillary Tubes

After the pipettes have been filled the ends must be sealed. This is done by plunging one end and then the other into the wax contained in the small, colored vial (fig. 3).

D. Collection of Material from Regional Lymph Nodes

In case an antiseptic has been used on the chancre, or for other reasons a satisfactory preparation cannot be made from it, fluid from the regional lymph nodes, if they are enlarged, may be used.

If it is desired to send the fluid from the lymph nodes care must be exercised to select the proper node. In cases of bilateral adenitis the glands may be affected with chancroidal infection, in which case some of the glands may be inflammatory and tender and show fluctuation. Such a gland should not be used. The gland from which to secure the fluid should feel indurated, shotty, not tender.

Sterilize the skin over the selected gland and lymph node.

Draw about five tenths of a cubic centimeter of salt solution into a one to two cubic centimeter sterile syringe. Use a 22 or 24 gauge needle.

Immobilize the gland by grasping it so that the skin is drawn tightly over it.

Thrust the needle into the gland. Rotate it to break apart some of the tissue at its tip and inject a few drops of salt solution. It is important that the point of the needle enters the gland and not the surrounding tissues.

Draw on the plunger of the syringe until a few drops of the fluid from the glandular tissue is pulled into it. The aspirated fluid may be deposited from the syringe onto a flat glass surface such as a microscopic slide or a clean watch glass or flat side of a bottle and collected in the capillary tubes in the same manner as described for collecting fluid from a chancre, that is, by holding the capillary tube horizontally and bringing one end in contact with the fluid so that the tube fills or almost fills readily. The two ends are then sealed by plunging them into the beeswax-paraffin mixture in the small vial.

Fig. 3

Fill in the data form which is attached to the lower end of the direction sheet. Replace the pipettes in the screw cap bottle. This, together with the vial containing the wax and the requested information, is placed in the mailing case. The gummed label is then stuck on the outside of the mailing case and a one and one-half cent postage stamp placed on the package. This package will reach the State Laboratory of Hygiene within twenty-four to forty-eight

hours. When the specimen is received, the serum is examined by dark-field for spirocheta pallida, and promptly reported.

Explanatory Note

This method of diagnosing primary sores is successful in 90 to 95 per cent of all cases of chancre. It has supplanted India ink preparations and the staining of smears by silver methods and various dyes. The result depends very largely on the way the specimen has been collected. If the sore has not been properly cleaned, if only a very small quantity of serum is obtained, and if too many blood cells are in the serum, the accuracy of the result is interfered with. If antisyphilitic treatment has been instituted and antiseptics used on the sore, the results of the examination are untrustworthy and therefore of no value.

The Treatment of Pulmonary Abscess; Review of Thirty-One Cases at the Wisconsin General Hospital*

By PETER A. MIDELFART, M. D., and JOSEPH W. GALE, M. D.
Madison

SINCE 1927 there have been thirty-one cases at the Wisconsin General Hospital in which pulmonary abscess has been the primary diagnosis. Those cases, in which pulmonary abscess was merely an incidental or postmortem diagnosis as part of a terminal septicemia (as in osteomyelitis or pyelonephritis) or as part of what was chiefly a bronchiectasis with multiple moderate sacculations, have been omitted.

General Description

There is little of unusual interest, so far as the general disease picture is concerned, in these thirty-one cases. The diagnosis, as a rule, could be made by the history of the case alone with the story of copious foul sputum associated with a very debilitating febrile course. Physical signs were often not typical of cavitation, and x-ray, in each instance, gave decisive information.

The age incidence and general mortality figures for these thirty-one cases are to be seen in table 1. In general, nineteen of the cases were less than forty years of age and twelve were forty or over. The mortality in the younger group was 59 per cent; in the older, 42 per cent—a general mortality of 51 per cent for all thirty-one cases. This higher mortality in the younger patients is at variance with the findings of Lillienthal[1] who, in 1928, reported a death rate of 63 per cent in cases over fifty as compared with 42 per cent in the group of less than fifty years of age.

TABLE 1

Age in years	*Number cases*	*Mortality per cent*
1– 9	0	0
10–19	8	37
20–29	4	75
30–39	7	71
Less than 40	19	59
40–49	5	40
50–59	5	40
60	2	50
Forty or more	12	42
Total	31	51

Etiology

The causative factors in the thirty-one cases were very diverse. (See tables 2 and 3.) There is less than the usual percentage of cases which can be laid to a preceding surgical intervention. Graham and Singer[2] reported 32 per cent of their cases as of postoperative origin. Numerous other authors, quoted by Graham, Singer, and Ballon,[3] report an incidence as high as 70 per cent. Only eight of the thirty-one cases here reported were postoperative abscesses. Of these, two followed tonsillectomy; one came after a complete dental extraction; four resulted from intra-abdominal operations; and one succeeded the lancing of a peri-

* From the Department of Surgery, University of Wisconsin Medical School.

tonsillar abscess. No definite statement concerning the type of anesthesia used could be found.

The pulmonary abscesses which were not postoperative in onset can be divided into five groups. There were fourteen which

TABLE 2

POSTOPERATIVE PULMONARY ABSCESSES

	Number cases
Intra-abdominal surgery	4
Tonsillectomy	2
Dental extraction	1
Peritonsillar abscess	1
Total	8

TABLE 3

ABSCESSES OF CAUSES OTHER THAN PREVIOUS SURGERY

	Number cases
Colds, etc.	14
Pneumonia or influenza	5
Exposure	2
Abortion	1
Head injury	1
Total	23

had an insidious gradual onset consisting in colds and gradually increasing cough. Five cases followed a definite pneumonia or influenza. Two came after severe chilling and exposure to wet. One case resulted five days after a "spontaneous" abortion, and one followed a head injury accompanied by unconsciousness. No light can be thrown by these cases on the dispute as to whether or not those attributed to pneumonia, etc., were not actually pulmonary abscesses from the onset, for most of these cases were admitted to this hospital in a subacute or chronic stage.

Location of Abscesses. As to the location of the abscesses and with regard to their relationship to a previous operation, our findings are shown in table 4.

Eleven of the thirty-one cases had abscesses located in the right lower lobe. Of these, five were postoperative in origin; six were not postoperative. Three abscesses were found to be in the left lower lobe; one of these was postoperative and two were not. Two were located in both lower lobes; neither of these was postoperative in origin. Twelve cases were scattered abscesses or were located in the upper lobe; two of these

TABLE 4

Location of abscesses	*Number cases*	*Per cent of the 8 postoperative abscesses in each location*	*Per cent of the 23 abscesses not postoperative*
Right lower lobe	11	63	28
Left lower lobe	3	12	9
Both lower lobes	2	0	9
Multiple scattered	12	25	40
Not stated	3	0	14
Total	31	100	100

Twenty-eight per cent of the pulmonary abscesses not postoperative in origin were located in the right lower lobe.

Sixty-three per cent of the postoperative pulmonary abscesses were confined to the right lower lobe.

were postoperative and ten were not. In three cases the exact location of the abscesses was not to be determined from the case records. The striking feature of table 4 is that 63 per cent of the pulmonary abscesses which followed a previous surgical operation were located in the right lower lobe, whereas only 28 per cent of those cases which were not postoperative in origin were located here. Whether or not this fact indicates that aspiration played a greater part in the pathogenesis of the postoperative abscesses than in the pathogenesis of the others can only be speculated upon.

TABLE 5

DURATION OF DISEASE

Number cases	*Average duration of symptoms before admission*
A 7	1 mo. (1 wk. to 2 mos.)
B 21	13 mos. (4 mos. to 4 yrs.)
C 3	26 yrs. (25 to 28 yrs.)
31	41 mos. (1 wk. to 28 yrs.)
i. e., 28 cases (omitting group C)	10 mos.

Duration of Symptoms. (Table 5.) A table showing the duration of symptoms before admission to the hospital demonstrates that we have been dealing chiefly with chronic pulmonary abscesses. Only seven of the thirty-one cases had had symptoms for less than two months, twenty-one had

had symptoms from four months to four years, and three had suffered from their pulmonary complaint for an average of twenty-six years. The general average duration was then forty-one months. If the longest three cases are omitted, the remainder averages ten months.

Treatment. The treatment of these thirty-one cases (table 6) was in brief of two types; i.e., operative—twenty-three cases, and nonoperative—eight cases.

TABLE 6

TYPE OF TREATMENT

		Number cases
I. *Operative*		
A. Open drainage		22
1. Cautery	20	
2. Bovie incision	1	
3. Scalpel incision	1	
B. Thoracoplasty		1
Total		23

II. *Nonoperative*	Number cases
A. Postural drainage	2
B. Neoarsphenamine	1
C. Supportive measures	2
D. No treatment	3
Total	8

All but one of the operative cases were treated by drainage of the abscesses transpleurally. Nineteen were treated by rib resection and removal of intercostal bundles with soldering iron cautery drainage of the intrapulmonary pathological process. This was done usually in two stages to insure firm pleural synthesis. One additional patient died on the operating table after a rib resection had been performed preparatory to the introduction of the soldering iron. In one case the lung was incised with the Bovie electrosurgical unit. One patient was being treated by thoracoplasty and the abscess was accidentally opened into; it was then treated with open drainage. One patient was treated with a Sauerbruch type of thoracoplasty in two stages.

The operative wounds of the cases treated with open drainage were all packed with gauze which was left in place as a rule seven to ten days postoperatively and the wound was then repacked every one to three days with acriflavine 1:1000 packs until it was too small to allow such packing, after which a small rubber tube was inserted into the sinus, being just long enough to reach through the chest wall. The earlier insertion of soft rubber tubes into the wound cavity led, in a large percentage of those cases in which it was attempted, to copious hemorrhage.

There were, as stated, eight cases which were not operated upon. Of these, four died and four left the hospital alive. Treatment in these cases consisted in postural drainage for two, one of which was acute and was entirely cured by this in a few weeks. One received a few injections of neoarsphenamine. Five cases were not treated as regards their pulmonary abscesses. They were considered to be too ill to tolerate treatment or they came to the hospital for diagnosis only.

Mortality. Table 7 gives, in brief, the mortality in this series of cases. The general mortality was, as already pointed out,

TABLE 7

MORTALITY

	Number cases	Mortality per cent
Operative	23	52
Nonoperative	8	50
Total	31	51

51 per cent. In the twenty-three operative cases it amounted to 52 per cent, and in the eight nonoperative cases it was 50 per cent. That this is a high operative mortality is not to be disputed, but Singer and Graham[2] report an operative mortality of 46 per cent in thirteen patients and quote Lockwood[4] as having a surgical mortality of 41 per cent in his own cases. Lillienthal[1] reported a surgical mortality of 45 per cent in 105 surgically treated cases.

Causes of Death. Twelve of the twenty-three cases operated upon died. The causes of death of these twelve patients were as follows: Five died of sepsis and advanced pulmonary disease. One died of hemorrhage postoperatively. Two died of hemorrhage on the operating table. Two died of a com-

bination of extreme sepsis and copious hemorrhage postoperatively. One died of operative shock while on the operating table before the pleura had been opened following a rib resection. One died of operative shock a few hours after leaving the operating table, having failed to regain consciousness. The two cases mentioned as dying of shock were both in extremis at the time of operation, and postmortem examination showed wide pulmonary infection and suppuration.

One of the cases which died of hemorrhage and sepsis postoperatively had been doing well until she was given, by error, an irrigation with Dakin's solution, immediately following which her septic course recommenced; she developed a streptococcus septicemia, had numerous severe pulmonary hemorrhages and died in five days. The other of these cases developed an acute nephritis following a postoperative scarlet fever. Packing, which was necessary to control bleeding from the lung, intensified the nephritic picture and the patient died in uremia. Four days before his death a pulmonary lobectomy had been successfully accomplished in an effort to alleviate the septic condition produced by the above-mentioned enforced packing of the drainage wound. The case which died postoperatively of hemorrhage was having the first pack loosened at the time at which the hemorrhage occurred. Lillienthal[1] records a quite similar series of causes of death in his forty-seven postoperative fatalities, naming hemorrhage, sepsis, contralateral conditions of the lung, preoperative sepsis, shock, and, in one case, acute nephritis.

The four cases, of the eight which were not operated upon, who died in the hospital, had a similar course. All died of progressive sepsis after a longer or shorter hospital stay. The pulmonary pathology was in each case progressive and in one of the four there was a terminal septicemia with a bacterial endocarditis.

End Results in Surviving Cases. Further than being alive following the surgical intervention, it is discovered that two cases were entirely cured before discharge from the hospital. That is, their cough had disappeared; they felt well; and there was no drainage from the wound, the fistulae being entirely closed. One of these cases underwent a lower lobe lobectomy in order to get rid of multiple bronchial fistulae.

TABLE 8

END RESULTS IN SURVIVING CASES

23 Operative cases	*Number*	*Per cent*
Entirely well	2	18
Well except for fistula	9	82
Total	11	

8 Nonoperative cases	*Number*	*Per cent*
Entirely well	1	25
Unimproved	3	75
Total	4	

The remaining nine surviving cases were all greatly improved on discharge but still had drainage from their wounds. In one case this was profuse but clear; in all the others it was minimal in amount and such statements as "sinus granulating rapidly," "fistula almost closed," were remarks made in each instance on discharge. Each of these eleven cases which survived surgical drainage was very toxic or septic prior to operation, the average weight loss before admission being twenty-six pounds in the nine cases which had run a course of longer than two months. In the two cases of shorter than two months' duration no statement concerning weight loss was made. In every case great gain in weight postoperatively was remarked upon, every postoperative case which survived had a normal temperature on discharge; and only two cases were stated to have any cough or sputum. These cases were upper lobe abscesses. One of them was associated with a lower lobe bronchiectasis which after treatment of the abscess by soldering iron cautery, continued to raise 0 to ¼ ounce of sputum per day in one coughing spell each morning. He, however, had changed from a very sick boy with up to twenty ounces of sputum per day to a healthy-looking youngster who had gained thirty-five pounds in three months.

In the group of eight patients not operated upon there were, as stated, four surviv-

ors. One of these, an acute abscess developing here in the hospital, was entirely well on discharge after a little over one month's postural drainage. The remaining three were discharged from the hospital living but untreated and unimproved, having been admitted for diagnosis only.

Factors Inufluencing Mortality. I. As can be seen from tables 9 and 10, those cases which had a single abscess had a mortality of

TABLE 9

FACTORS INFLUENCING MORTALITY

	Number cases	*Number survived*	*Number died*	*Mortality %*
OPERATIVE GROUP				
Single abscesses	13	8	5	38
Multiple abscesses	10	3	7	70
NONOPERATIVE GROUP				
Single abscesses	3	3	0	0
Multiple abscesses	5	1	4	80

TABLE 10

OPERATIVE AND NONOPERATIVE GROUPS

	Number cases	*Number survived*	*Number died*	*Mortality %*
Single abscesses	16	11	5	31
Multiple abscesses	15	4	11	73

38 per cent in the group operated upon and of 0 per cent in the nonoperative group—a total mortality of 31 per cent. The cases with multiple abscesses had a mortality of 70 per cent in the surgically treated group and 80 per cent in those medically treated—a total mortality of 73 per cent. Singer and Graham[2] recognized this same tendency toward a fatal outcome among those cases with multiple or distinctly multilocular abscesses.

Factors Influencing Operative Mortality

II. As can be seen in table 11, there is a steady increase in the operative mortality as the length of time of the existence of symptoms increases before operation. Those whose symptoms had been present only six months or less had an operative mortality of 20 per cent; from six months to one year, 33 per cent died; but, if symptoms were present more than one year, 89 per cent of the patients died after operation.

That this increase in mortality is not entirely a result of the progression from single abscesses to multiple, can be seen in tables 12 and 13. Among the single abscesses the

TABLE 11

OPERATIVE MORTALITY AND DURATION OF SYMPTOMS BEFORE OPERATION

Duration of symptoms	*Number cases*	*Mortality %*
0–6 mos.	5	20
6 mos.–1 yr.	9	33
1 yr.	9	89

mortality rose from 20 per cent in those cases of less than six months' duration to 67 per cent where the disease had lasted more than one year. Table 13 demonstrates the same state of affairs for the multiple abscesses in which the three surviving cases were all of less than one year's duration, the mortality here being 25 per cent for this

TABLE 12

OPERATIVE MORTALITY IN SINGLE ABSCESSES

Duration of symptoms	*Number cases*	*Mortality %*
0–6 mos.	5	20
6 mos.–1 yr.	5	40
1 yr.	3	67
Total	13	38

TABLE 13

OPERATIVE MORTALITY IN MULTIPLE ABSCESSES

Duration of symptoms	*Number cases*	*Mortality %*
0–6 mos.	0	0
6 mos.–1 yr.	4	25
1 yr.	6	100
Total	10	70

group and 100 per cent in the six cases of multiple abscesses of more than twelve months' duration. Neuhof and Wessler[5] in 1932 reported that of nine patients with acute pulmonary abscesses operated upon eight recovered and one died; of six surgically treated patients with subacute abscesses, three recovered and three died. Among twenty-one cases of chronic pulmonary abscess, twelve recovered completely, two were improved, and seven died. Hed-

blom,[6] in discussing this paper, is quoted as follows: "The fundamental principle of treatment of pulmonary abscess is drainage, through the bronchus if centrally situated, and by thoracotomy if peripheral. Expectant treatment may be prolonged indefinitely if the patient improves progressively. If the disease process is at a standstill, and there are marked symptoms, drainage should be instituted before the destructive changes of chronicity have developed. If the progress is downward, unduly prolonged expectant treatment robs the patient of his chance for a cure by surgical drainage. The high mortality in chronic abscess is attributable to the pathologic changes brought about by ill-advised 'conservative' treatment rather than to the drainage operation as such." Our above represented results tend to bear this out.

The relationship between the duration of the pulmonary sepsis and multiplicity of abscesses is evidenced by tables 14 and 15. In table 14 it is seen that 50 per cent of the single abscesses were of less than six months' duration and 75 per cent had been of less than one year's standing. On the other hand, only 35 per cent of the multiple abscesses had had their complaint for less than one year, while 65 per cent had endured for more than twelve months at the time of admission to the hospital. Table 15 shows that 80 per cent of all cases with symptoms of less than six months were single abscesses at the time of admission, whereas 71.5 per cent of all cases of more than one year's duration were possessed of multiple or multilocular abscesses on arrival at the hospital.

TABLE 14

DURATION OF DISEASE AND MULTIPLICITY OF ABSCESSES

Duration of symptoms	*Single abscesses*		*Multiple abscesses*	
	No.	*%*	*No.*	*%*
0–6 mos.	8	50	2	14
6–12 mos.	4	25	3	21
12 mos.	4	25	10	65
Total	16	100	15	100

TABLE 15

DURATION OF DISEASE AND MULTIPLICITY OF ABSCESSES

Duration of symptoms	*Number cases*	*Per cent single*	*Per cent multiple*
0–6 mos.	10	80	20
6–12 mos.	7	57	43
12 mos.	14	28.5	71.5
Total	31	51.6	48.4

There are a few more points of interest brought out by this review. The incidence of oral pathology associated with these cases of pulmonary suppuration was very high. In six of the cases all teeth had been extracted before admission to the hospital. In the remaining twenty-five, however, the records definitely state that pyorrhea alveolaris was present in ten, absent in five, while no mention was made of this condition in another ten. That is, 40 per cent of all cases from whom the teeth had not been extracted had pyorrhea alveolaris, and 67 per cent of those in which mention was made of the condition were so affected. In ten cases x-rays of the teeth were taken. Seven of these showed apical abscesses and three did not. In twenty-one of the cases carious and dirty teeth were stated to be present and only one case was said to have teeth in good repair, an incidence of dental pathology of 95 per cent.

In this connection the work of Stern[7] is of interest in that he reports twelve cases of putrid abscess of the lung following dental operations, eight of which were performed under local anesthesia. Crowe and Scarff[8] produced experimental pulmonary abscesses by introducing into the bronchus of dogs pledgets of cotton soaked in fresh scrapings of pyorrhea cavities. D. T. Smith[9] produced similar abscesses in mice and guinea pigs by the intratracheal injection of pyorrhea scrapings into anesthetized animals.

Of nine cases admitted to the hospital in 1935, five suffered from outstanding complicating diseases in each of which a streptococcus was the probable offending organism. There was one case of streptococcus septicemia with a streptococcus suppurative arthritis of a knee; one case developed a severe hemorrhagic nephritis following an erysipelas about the wound. Both of these patients died—the former of her blood stream infection, the latter in uremia.

In three cases there was a severe typical atrophic polyarthritis. In two of these the

predominating organism in the sputum on culture was a hemolytic streptococcus; in the third the sputum was not cultured. All signs of arthritis promptly subsided when the pulmonary abscesses were drained.

Summary and Conclusions

Thirty-one cases of pulmonary abscess have been described.

The age of the patients in this group bore no remarkable relationship to the mortality.

Almost two thirds of the eight postoperative abscesses were confined to the right lower lobe of the lungs, whereas only one fourth of those abscesses not postoperative in origin were located there.

These were chiefly chronic abscesses. Their average duration before admission was forty-one months.

Twenty-three cases were treated by surgery, and eight were not given surgical treatment.

The mortality in the operative cases was 52 per cent; in the nonoperative cases it was 50 per cent.

All of the surviving surgically treated cases were either well or "clinically cured" on discharge while only one case, and that a very acute one, was improved without open drainage. The causes of death in the fatal cases have been detailed.

The operative mortality in thirteen cases with single abscesses was 38 per cent; in ten cases with multiple or multilocular abscesses it was 70 per cent.

The operative mortality in fourteen cases of less than one year's duration was 28 per cent. In nine cases of more than one year's duration the operative mortality reached 89 per cent.

Although the number of cases reported is small, the striking correlation of a long duration of symptoms and multiplicity of abscesses with a high mortality, make it appear justifiable to conclude that the longer symptoms have been present the more likely are the abscesses to be multiple and both of these factors, separately and together, result in a very great increase in the operative and nonoperative mortality.

The finding of oral sepsis in these patients was of extraordinarily high incidence. In nine cases admitted in one year, five had severe complications apparently associated with infection by a streptococcus.

BIBLIOGRAPHY

1. Lillienthal, H.: Non-tuberculosis Pulmonary Suppuration. Arch. Surg., **16**: 206 (January—part II) 1928.
2. Singer, J. J., and Graham, E. A.: A Study of Thirty-four Cases of Abscess of the Lung. J.A.M.A., No. 3: **91**: 193 (July 21) 1923.
3. Graham, E. A., Singer, J. J., and Ballon, H. C.: Surgical Diseases of the Chest. Philadelphia: Lea and Febiger, 1935, pp. 709-742.
4. Lockwood, A. L.: Abscess of the Lung. Surg., Gynec., and Obst., **35**: 461 (October) 1922. Cited by Singer and Graham 2.
5. Neuhof, H., and Wessler, H.: Putrid Lung Abscess—Its Etiology, Pathology, Clinical Manifestations, Diagnosis, and Treatment. J. Thoracic Surg., **1**: 637 (August) 1932.
6. Hedblom, C. A.: Discussion of paper by Neuhof and Wessler (5). J. Thoracic Surg., **1**: 647 (August) 1932.
7. Stern, L.: Putrid Abscess of the Lung Following Dental Operations. J. Thoracic Surg., No. 6: **5**: 547 (August) 1935.
8. Crowe, S. J., and Scarff, J. E.: Experimental Abscess of the Lung in the Dog. Arch. Surg., **16**: 176 (January—part II) 1928.
9. Smith, D. T.: Experimental Aspiratory Abscess. Arch. Surg., **14**: 231 (January—part II) 1927.

OFFICIAL CALL

To the Officers, Fellows and Members of the American Medical Association:

The eighty-eighth annual session of the American Medical Association will be held in Atlantic City, New Jersey, from Monday, June the seventh, to Friday, June the eleventh, nineteen hundred and thirty-seven.

The House of Delegates will convene on Monday, June the seventh.

The Scientific Assembly of the Association will open with the General Meeting held on Tuesday, June the eighth, at 8:30 p. m.

The various sections of the Scientific Assembly will meet Wednesday, June the ninth, at 9 a. m. and at 2 p. m., and subsequently according to their respective programs.

CHARLES GORDON HEYD,
President,

NATHAN B. VAN ETTEN,
Speaker, House of Delegates.

Attest:

OLIN WEST, *Secretary,*

Chicago, Illinois, March the fifteenth.

THE WISCONSIN MEDICAL JOURNAL

The Editorial Board

GEORGE H. EWELL, Madison F. GREGORY CONNELL, Oshkosh S. J. SEEGER, Milwaukee

Editorial Staff

GEORGE H. EWELL, Madison, Acting Medical Editor MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

A. W. ROGERS-------Oconomowoc
FRANK W. POPE----------Racine
JOSEPH DEAN----------Madison
W. CUNNINGHAM------Platteville
A. H. HEIDNER-------West Bend
S. E. GAVIN---------Fond du Lac
H. A. JEGI----------Galesville
G. R. DUER----------Marinette
J. W. LAMBERT----------Antigo
JOSEPH F. SMITH--------Wausau
F. E. BUTLER---------Menomonie
F. G. JOHNSON--------Iron River
JOS. LETTENBERGER-Milwaukee

Annual Subscription--------Three Dollars-Fifty Cents Single Copies--------Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI MAY, 1937 Number 5

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

Nephrostomy

I AM actuated to write these comments because of a remark a urologist colleague made while we were making rounds on his wards.

The case under discussion was one of pyohydronephrosis secondary to an extensive carcinoma of the bladder. The patient had entered the hospital in extremis, an emergency nephrostomy had been done and when we made rounds we found a cheerful, comfortable patient. My colleague remarked that he had operated on several such patients and had seen them live in more comfort for several months, "But", he added, "the unfortunate part is, I don't see them early enough so as to afford them more comfort."

Almost forty years ago it was pointed out that the kidney had a marked power to recover from infection and to recover function, once adequate drainage was established. This suggestion was not generally accepted for many years, so that for a long period the operation of nephrostomy was done as an emergency measure and in many instances where little was known of the urinary tract in general.

During the past five years, several articles have appeared recommending the operation as a selective procedure in numerous conditions. Cabot and Holland[1] devised an excellent technic and discussed several conditions in which they found the operation of inestimable value.

In hydronephrosis or pyohydronephrosis, where enough function remains in the kidney to warrant an attempt to save the kidney and then remove the cause of the hydronephrosis at a subsequent operation, and likewise in cases of hydronephrosis in a solitary kidney where, perhaps, its mate had been removed for hydronephrosis, nephrostomy is indicated; also in acute obstruction of both ureters from calculi or in calculus obstruction of a single ureter where the obstructing calculus cannot be passed by ureteral catheters or where they do not provide adequate drainage when they can be passed.

In renal calculus disease, where marked kidney destruction has occurred, temporary nephrostomy allows for return of function and aids greatly in clearing up infection.

In some cases of massive bilateral or multiple calculi of the so-called silent type, where gradual destruction of kidney function takes

place, the removal of calculi is not deemed feasible. However, in many of the cases of staghorn calculi with marked impairment of renal function, the operation would be a life-saving measure, but is impossible to perform since the kidney pelvis is markedly contracted and completely filled with calculus.

As previously mentioned, permanent nephrostomy is admirable in certain cases of malignant disease of the bladder, usually advanced ones.

In those cases where total cystectomy is contemplated for bladder tumors, intractable cystitis from tuberculous disease, pan mural cystitis, large unrepairable vesicovaginal fistulae and radium burns of the bladder, some other method of diverting the urinary stream is usually employed.

In gonococcal pyelonephritis, where the condition is not recognized early and adequate treatment given, permanent nephrostomy is the only treatment that will preserve the kidney function since the disease is usually progressive.

In cases of acute hydronephrosis from accidental ligation of the ureter during operations on the female pelvic organs or where the ureter has been severed during these operations, since operations for repair of these ureters are difficult and hazardous, some men prefer to leave the nephrostomy permanent as in many of these cases destruction of the kidney ultimately occurs.

Lastly, as suggested by Sisk, Wear, and Cummings,[2] in cases of acute pyelonephritis occurring in a kidney which showed no evidence of infection, or mild infection, prior to operation on its mate or ureter, these patients are most often acutely and dangerously ill. The authors feel that the obstruction in these cases is due to the great edema and swelling of the pelvis and ureter as demonstrated at operation and in these adequate drainage cannot be provided by inlying ureteral catheters. The patient's chances are greatly enhanced when the condition is recognized early and the nephrostomy done early.

Nephrostomy should no longer be performed only as an emergency last resort measure, as there is plenty of evidence to show that it should be done as a selective operation in a large group of cases. G.H.E.

1. Cabot, H., and Holland, W. W.: Surg., Gynec. & Obst., 54:817, (May) 1932.

2. Sisk, I. R.; Wear, J. B., and Cummings, E. F.: Am. J. Surg., 25:451, (Sept.) 1934.

The House of Delegates

THE welfare of the patient, and the preservation and protection of the public health are the yardstick that the medical profession of Wisconsin will use in measuring the effect of bills which refer to the delivery of medical service.

Using that yardstick of measurement, the House of Delegates of the State Medical Society, in its first special session (April 26) in the ninety-seven years of existence of the Society, declared against five bills by Assemblyman Biemiller, Milwaukee. They included one for compulsory sickness insurance financed by payroll levies (Bill 852A); certain exemptions from insurance laws to favor hospitalization insurance (Bill 662A); third party associations including cooperatives, buying or furnishing medical service for uniform prepaid premiums (Bill 850A); permitting counties to undertake the practice of medicine as a tax-supported service to all residents (Bill 748A); and permitting communities to subsidize or employ tax-supported physicians to care for all residents under control and rules of municipalities or county boards (Bill 747A).

Using the same yardstick, the profession endorsed the sixth bill (844A) by Mr. Biemiller (with certain amendments) calling for the creation of a consumers' bureau to protect against misbranded and adulterated drugs and substandard devices.

The endorsement by the profession of the principle of the seventh bill (although opposing the bill, 740A, in its present wording) declared its belief that medical service for those on relief can best be handled under the county system as opposed to the township system.

A summary of action of the House will have been received by all members prior to this Journal. Its action will be reported more fully in subsequent issues.

.... THE PRESIDENT'S PAGE ....

A Single Basis For Action

IT SEEMS but a very short time ago, and as a matter of fact it is but a very few years, since the first intimation was heard regarding anything that would show a trend in this country toward any form of socialized medicine. When such a thing was mentioned, either at a meeting of the State Medical Society or a county medical society, scant attention was given by the general membership. As some of the farseeing officers or members of the medical profession began to stress the impending possibility, some, if not many, were inclined to believe that they were either setting up a straw man or were unduly alarmed, because the physicians knew of the tremendous advance in medical service for all people; of the great accomplishments for all in the field of prevention, and of the continuous progress being made. In face of that knowledge, we even thought that it just couldn't happen here, and probably we were right. But, here we are today face to face with a number of bills in the state legislature, which, if enacted into laws, would, overnight, change the entire nature of the practice of medicine.

The change would be so drastic, and the influence upon the delivery of medical service in the state of Wisconsin would be so great, that it was deemed wise and advisable to call a special meeting of the House of Delegates for the purpose of considering these bills and expressing the desire of the members as to what attitude should be taken toward them by the State Society.

The one and only yardstick that will be used by the medical profession in evaluating these bills and determining its attitude is the effect that this legislative action would have upon the public health. Consideration of any other phase connected with such legislation would not be worthy of any physician.

The question of economic welfare and security for the medical profession, of course, cannot at any time enter into the picture. The statement has been stressed by proponents of the legislation, probably as a means of attracting the favorable interest of the profession, that the general economic condition of medical men would be improved by such laws. That is not to be given a second thought if we feel that this legislation would in any way deteriorate the type of medical service rendered to the people. Others have stated that the economic position of physicians would suffer greatly by any form of socialized medicine. This statement also will not influence us in the slightest degree in arriving at a decision.

We naturally do not care to be impoverished, and would not cheerfully welcome such a development. Neither do we seek increased affluence if it means a poorer quality of medical care. But I am quite sure we would willingly sacrifice any material advantages and support the entire program of socialized medicine if we feel that such a program would benefit the health of the people of the state of Wisconsin. I am also sure that, regardless of our economic security, we will battle just as unceasingly to defeat such legislation if we are satisfied that this suggested program will be detrimental to the public health.

This page is written before the session, and I know I voice the thoughts of all members when I say that we hope that the action of the House of Delegates, in special session, will express in no uncertain or compromising terms the position of the entire Society, whether that opinion be for a radical change or modification in the constantly increasing efficiency in the distribution of medical care, or for a continuation of our present system which has, up to the present time, given the citizens of all classes in this country the best medical service in the world.

Therefore, it is strongly urged that this one thing be kept foremost in mind in all discussions on this subject, and that all members of the Society, in their contact with members of the legislature, as well as the laity, stress the fact that our one real and great concern in the whole problem is entirely in the interest of the prevention and cure of disease. All other things are secondary.

S. E. Gavin

Society Proceedings

Brown—Kewaunee—Door

Dr. M. J. Fox of Milwaukee spoke on the subject of "Scarlet Fever" at the regular meeting of the Brown-Kewaunee-Door County Medical Society which was held at the Northland Hotel on April 13.

Dane

Dr. W. D. Stovall of Madison spoke on "The Campaign Against Cancer" at the meeting of the Woman's Auxiliary to the Dane County Medical Society on April 14 at the home of Mrs. William A. Mowry. Assisting hostesses at the one o'clock luncheon were Mrs. J. C. Sommers, Mrs. Ralph Waters, and Mrs. Elmer L. Sevringhaus.

Eau Claire—Dunn—Pepin

The Eau Claire-Dunn-Pepin County Medical Society met for dinner and a scientific program at the Hotel Eau Claire on March 29. The program presented was as follows:

"Five Minutes of Medical News," Dr. Nels Werner.

"Psychiatric Problems of the General Practitioner," Dr. W. H. Hengstler, St. Paul.

"Congenital Cysts and Fistulae of the Neck," Dr. A. Schwyzer, St. Paul.

At the meeting on April 26 two physicians from the Mayo Clinic, Dr. B. R. Kirklin and Dr. J. A. Bargen, presented papers. Doctor Kirklin's subject was "The Value of X-Ray in Diagnosis of Pulmonary Lesions," and Doctor Bargen's, "Differential Diagnosis and Management of Conditions Causing Intestinal Obstruction." Dr. J. E. B. Ziegler opened the scientific program following the dinner with "Five Minutes of Medical News."

Green Lake—Waushara

Princeton was host to the members of the Green Lake–Waushara County Medical Society and its Auxiliary on April 1. Dinner was served at the American House, after which Dr. E. L. Sevringhaus of Madison and Dr. Orvil O'Neal of Ripon presented scientific papers. This was followed by a social hour at the home of Dr. and Mrs. G. G. Mueller.

Jefferson

The March meeting of the Jefferson County Medical Society was held at Watertown on March 18. Doctor Lorenz of the Psychiatric Institute, Madison, discussed "The Clinical Interpretation of Spinal Fluid Findings."

The next meeting will be held on April 15 at Lake Mills, with the following program: "Roentgen Diagnosis of Bone Tumors," Dr. L. G. Jacobs, instructor in radiology, University of Wisconsin; "Discussion: Radiation Therapy of Bone Tumors (with illustrative case reports)," Dr. E. A. Pohle, professor of radiology, University of Wisconsin.

Milwaukee

The April meeting of the Medical Society of Milwaukee County, sponsored by the Committee on Scientific Research, was held at the Milwaukee County General Hospital on April 9 at 8:15 p. m. Dr. A. A. Schaefer spoke on the subject of "Blood Grouping," and other speakers on the scientific program were Dr. L. J. Van Hecke and Dr. Alan M. Chesney, dean of Johns Hopkins University Medical School, Baltimore. Doctor Van Hecke gave "A Summary of the Cancer Antigen Work at the Milwaukee County General Hospital," and Doctor Chesney spoke on "Some Contributions to Our Knowledge of Experimental Syphilis." A social hour followed the medical program.

Outagamie

The regular meeting of the Outagamie County Medical Society was held April 16 at the Northern Hotel, with dinner at 6:30 p. m. Dr. Chester C. Schneider of Milwaukee, who was the speaker, discussed "Back Injuries and Their Treatment."

The society will be host at the thirty-fourth annual meeting of the Fox River Valley Dental Society, Neenah, Menasha, Green Bay, Marinette, Sheboygan, which includes dentists from Fond du Lac, Oshkosh, Manitowoc, Ripon, Berlin, and nearby communities. The convention will be held May 23 and 24.

A golf tournament will feature the first day of the meeting. Talks by outstanding dental authorities of the Middle West will be given the second day. The program committee, headed by Dr. J. R. Benton, Appleton, includes a representative of each of the cities among which the annual meetings alternate,—Dr. G. J. Mortell, Green Bay; Dr. F. H. Simerson, Neenah; Dr. A. C. Gifford, Oshkosh; Dr. V. G. Bowhausen, Fond du Lac; and Dr. E. H. Redeman, Marinette.

Rock

Members of the Rock County Medical Society held a meeting at the Monterey Hotel in Janesville on the evening of March 23, at which time Professor Henry Bascom Thomas of the Department of Orthopedic Surgery of the University of Illinois College of Medicine, showed films of rehabilitation of crippled children and also joint operations. Professor Thomas also discussed fractures and illustrated his talk with slides.

Washington—Ozaukee

At a meeting of the Washington-Ozaukee County Medical Society on March 25 at St. Joseph's Hospital, Hartford, a very interesting paper on "The Rectal Conditions Readily Treated in the Office" was presented by Dr. A. G. Schutte of Milwaukee. The paper was illustrated by lantern slides. There was also a discussion of conditions affecting the patients of the Pewaukee Sanitarium, jointly operated by Waukesha and Washington Counties, and of general medical and surgical subjects by members of the Hartford hospital staff.

Wood

Forty members attended the annual meeting of the Wood County Medical Society held at St. Joseph's Hospital at Marshfield on April 8. After dinner the following program was presented: "Allergy," Dr. Stephan Epstein; "Petrositis," Dr. Lyman A. Copps; "Fractures of the Hip," Dr. P. F. Doege.

Dr. L. M. Morse of Neillsville discussed the tuberculin program for the children of Wood County, and the society voted to enter into this program with full cooperation. The president appointed a committee of three, namely, Doctors Boeckman, Nelson, and Pomainville, to arrange for details for this work.

The following officers have been elected:

President, Dr. J. B. Vedder, Marshfield
Vice president, Dr. Wallace Nelson, Wisconsin Rapids
Secretary and Treasurer, Dr. W. G. Sexton, Marshfield
Delegate, Dr. K. H. Doege, Marshfield
Alternate delegate, Dr. F. X. Pomainville, Wisconsin Rapids
Censor, Dr. George Pomainville, Nekoosa.

Milwaukee Academy of Medicine

Dr. Millard Tufts and Dr. Robert Page Montgomery were the two speakers at the meeting of the Milwaukee Academy of Medicine on April 20. Doctor Tufts discussed hyperparathyroidism with unusual complications, and Doctor Montgomery talked on sciatica and low back pain.

Milwaukee Neuro-Psychiatric Society

The following program was presented at the meeting of the Milwaukee Neuro-Psychiatric Society on April 29 at the Madison Club:

"Antidotal Action of Picrotoxin in Barbiturate Poisoning," Dr. W. J. Bleckwenn and Dr. M. G. Masten.

"Critical Analysis of Eighty-Nine cases of Multiple Sclerosis," Dr. Irving Shulak.

"Shock Treatment of Schizophrenia," Dr. Hans H. Reese and Dr. Adrian Vander Veer.

"The Clinical Significance of Feeling of Unreality," Dr. Annette C. Washburne.

Milwaukee Surgical Society

Eighteen Chicago surgeons and physicians, all members of the Billings Medical Club, were guests on April 6 of the Milwaukee Surgical Society at a dinner meeting at the University Club. Dr. L. J. Pollack of Chicago discussed "Cerebral Spinal Fluid Pressure." The meeting was in charge of Dr. J. S. Gordon of Milwaukee.

The Woman's Auxiliary

President—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
President Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior
Hygeia Chairman—
Mrs. H. H. Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

Brown—Kewaunee—Door

A benefit card party was given at the Hotel Northland, Green Bay, by the Woman's Auxiliary to the Brown-Kewaunee-Door County Medical Society. Auction and contract bridge were played at sixty tables, there being a prize for each table. The funds from this party are to be used for the Auxiliary's project of distributing Hygeia in city and rural schools and for the groups main philanthropic enterprise, assisting in the support of the St. Mary's Infants Home.

Refreshments were served at the close of the afternoon. Mrs. J. R. Minahan and Mrs. E. S. Schmidt poured. Mrs. G. F. Denys, chairman of the Hygeia Committee, and Mrs. I. E. Levitas, chairman of the Philanthropic Committee, were co-chairmen of the

tea. Mrs. Denys was assisted by Mrs. J. J. Robb, Mrs. George F. Goggins, Mrs. E. M. Jordan, Mrs. R. L. Troup, and Mrs. L. Milson. Mrs. W. C. Comee assisted Mrs. Levitas.

Green Lake—Waushara

The members of the Woman's Auxiliary to the Green Lake-Waushara County Medical Society met with the medical society for their quarterly session on April 1 at Princeton. After a 6:30 dinner at the American House, a business meeting was held at the home of Mrs. G. G. Mueller. The following three new members were added to the roll of the Auxiliary: Mrs. Federman, Montello; Mrs. Koch, Berlin; and Mrs. Eppley, Princeton.

Kenosha

Dr. Franklin C. Bing, secretary of the Council on Foods of the American Medical Association, was speaker at an open meeting sponsored by the Woman's Auxiliary to the Kenosha County Medical Society on May 3 in the art museum at Kenosha. Doctor Bing spoke on "Recent Developments in Research on Foods and Nutrition." Each year the Auxiliary is making it a custom to sponsor a talk on some phase of health education.

Milwaukee

Approximately 135 members of the Woman's Auxiliary to the Medical Society of Milwaukee County attended a delightful spring luncheon held Friday, April 9, at the Y. W. C. A. The Rev. Raphael C. McCarthy, S. J., Ph. D., president of Marquette University, an authority on mental hygiene, gave a most instructive and interesting talk on "The Role of Fear in Human Behavior."

Mrs. Louis M. Warfield, chairman in charge of the musical program, presented Mildred Catenhusen, cellist, and Cecile Ustruck, pianist,—also Alice Pinter who sang a group of charming English songs, accompanied by Gladys Hewitt.

The program was followed by the regular business meeting of the Auxiliary.

Mrs. Eben J. Carey, president, called attention to an editorial in the April, 1937, number of The Milwaukee Medical Times entitled "Auxiliary Praised." In order that physicians and Auxiliary members throughout the State may know what the Milwaukee Auxiliary is doing, the editorial is quoted in full:

"As the years have passed the conviction grows on us that the medical profession of this community has a most potent ally in the Woman's Auxiliary. We have reviewed its accomplishments before in these pages, and, perhaps, repetition is not necessary. However, we do wish to mention again some of the Auxiliary's contributions to the welfare of this community and to the medical profession, for which we believe they deserve the highest commendation.

"No group could have more faithfully adhered to the purpose for which the organization was created. In every conceivable manner the Auxiliary has endeavored to further the cause of medicine. Not the least of its accomplishments has been the fostering of good will among the members of the medical profession. This statement may surprise some of those who were somewhat skeptical when the Auxiliary was organized and who have not closely followed its development. The facts are that not only have many friendly relationships grown among members of the Auxiliary itself, but the good will created has carried over into the attitude shown by physicians toward each other and toward the Medical Society. Here is something tangible, evidence of which is found in the membership records in the Society's offices.

"Recently the Auxiliary has given its attention to community affairs, engaging in a cooperative and worth-while program with the Visiting Nurses Association. In addition, it has continued its public health work, assisting the Society in its Preschool Round-Up, its Tuberculosis Detection Program, and with the Speakers' Bureau.

"A few weeks ago the Society requested financial assistance from the Auxiliary for its program of public health education. The eager and enthusiastic response to this appeal should warm the heart of every medical man. A substantial fund which had been accumulated was turned over to the treasurer of the Society immediately, with the promise that further funds would be forthcoming. And you can believe us, the Auxiliary will more than meet that promise.

"We ask again that the medical profession of this community recognize this loyalty with more than passive acceptance. We all are human. We like to hear approval of what we are doing. Can the lethargy which sometimes is displayed be due to the fact that husbands are reluctant to praise their wives? Well, here's a challenge. If it isn't true, make it a point to tell the 'better half' that you think the Auxiliary is doing a splendid job."

Mrs. Carey also referred to a leaflet issued by Medical Service, which had been sent to physicians, additional copies of which were on hand for distribution to Auxiliary members. Medical Service, a new unit of the Medical Society of Milwaukee County, has been established to aid patients who find it difficult for financial reasons to obtain needed care. The service employs trained experts to analyze financial problems, budget medical and hospital bills, and take charge of their collection on a month-to-month basis. The Auxiliary is asked to assist in publicizing this service so that doctors and patients may avail themselves thereof.

Mrs. N. Warren Bourne, membership chairman, presented and welcomed into the Auxiliary, the following new members: Mesdames J. L. Armbruster, G. H. Fellman, E. O. Gertenbach, J. J. Grimm, R. M. Hall, E. C. Kocovsky, W. M. Kearns, D. H. Lando, Jr., R. P. Montgomery, James E. Morgan, H. P. Robinson, and R. C. Wolf. In this connection, it is interesting to note that, according to the report of the national treasurer, Milwaukee County has the second largest Auxiliary of the American Medical

Association, the only one surpassing it is size of membership being Philadelphia County, Pennsylvania.

Mrs. Robert Washburn, public relations chairman, announced that sixteen speakers on health subjects had been placed during the month of March, 1937.

Mrs. Charles Fidler, program chairman, announced an open meeting May 14, 1937, at the Schroeder Hotel, when "The Physician in Literature" will be discussed by Dr. Irving S. Cutter, dean of Northwestern University Medical School. There will also be a showing of summer fashions by Hixons during the luncheon.

It is hoped that members of our sister Auxiliaries in the State will take advantage of the warm spring weather to come to Milwaukee for this meeting, which will be the last regular meeting until fall.

Portage

The Woman's Auxiliary to the Portage County Medical Society met Monday, April 5, at the home of Mrs. L. S. Dietrich at 7:00 p. m. for dessert and coffee. This was followed by a short program which consisted of a reading "Boys Will Be Boys" given by Neva Jane Burroughs, a student of the local high school. A short business meeting was then held.

Rock

The Woman's Auxiliary to the Rock County Medical Society was delightfully entertained at the home of Mrs. F. E. Brinckerhoff, Beloit, on Thursday evening, April 27. Dinner was served from a beautifully appointed buffet table with spring flowers and blue tapers on a lace cloth. Guests were seated at small tables; at each centerpiece was a small crystal basket filled with sweet peas. Bridge offered diversion during the evening.

The committee in charge included: Mrs. W. W. Crockett, Mrs. W. H. Becker, Mrs. Harold Helm, Mrs. T. F. Shinnick, Mrs. H. E. Kasten, and Mrs. George Johns. The next meeting of the Auxiliary will be held in Janesville in May.

Sheboygan

The regular monthly luncheon meeting of the Woman's Auxiliary to the Sheboygan County Medical Society was held at the Dresden on Wednesday, April 7. A one o'clock luncheon preceded the business session and program.

Dr. G. J. Hildebrand of Sheboygan was the speaker for the occasion and talked on "Scarlet Fever." The guest soloist was Miss Doris Dietsch, who sang "The Winds in the South Today" and "Rain, Rain, Rain." She was accompanied by Miss Hildegard Wilson.

During the business session the group voted to assist in every possible way the orthopedic clinic to be held on April 10. This was conducted under the auspices of the Sheboygan County Medical Society and the Crippled Children Division of the State Department of Public Instruction. Mrs. R. C. Meyer acted as general chairman for the work of the Auxiliary in connection with the clinic and was assisted by Mrs. F. Leighton of Sheboygan Falls, president of the society; Mrs. J. F. Mueller, Mrs. C. M. Yoran, Mrs. A. J. Brickbauer, and Mrs. H. F. Deicher of Plymouth; and Mrs. W. H. Neumann, Mrs. P. B. Mason, Mrs. G. Hildebrand, and Mrs. McRoberts of Sheboygan.

Waukesha

The Woman's Auxiliary to the Waukesha County Medical Society was entertained at the home of Mrs. F. J. Woodhead, Waukesha, on April 7. The guest speaker was Dr. S. E. Peterson, Wauwatosa, whose subject was "The Doctor's Wife."

The members have decided to sponsor a public health talk on "Cancer" in the near future. Each year the group has a prominent doctor come to Waukesha and address the public on a health subject. The committee arranging for this gathering and speaker includes the Mesdames Herbert Sydow, Martin Werra, Paul E. Campbell, J. B. Noble, and R. E. Davies. This meeting is planned for the early part of May.

Washington—Ozaukee

Members of the Woman's Auxiliary to the Washington-Ozaukee County Medical Society held a meeting at West Bend recently and enjoyed a one o'clock luncheon at the Beacon. Later cards were played at the home of Mrs. W. J. Wehle. Prizes were won by Mrs. Maurice Monroe of Hartford, Mrs. Kenneth Prefontaine of Slinger, and Mrs. Ray Fisher of Allenton. The next meeting which the Auxiliary has scheduled will be held at Port Washington on May 13.

Winnebago

There were about 150 members of the Auxiliaries of the Medical Societies of Sheboygan, Fond du Lac, Green Bay and Outagamie at the meeting of the Auxiliary to the Winnebago County Medical Society, held on the afternoon of April 6, in the demonstration room at the Teachers College. Dr. Lorin E. Dickelmann was the speaker, giving an informative and interesting talk on social diseases.

There was a short musical program, Miss Jean Webster of the Teachers College, singing two solos, "Evening Star" from Tannhauser, and "Song of Love" from "Blossom Time." Her accompanist was Joseph H. Frank. There was a short business meeting before the talk, and members of the Winnebago County Auxiliary decided to once again distribute 100 copies of Hygeia to the county schools.

Tea was served at the close of the program, Mrs. C. J. Combs and Mrs. J. P. Canavan of Neenah presiding at the tea table. The hostesses included Mrs. Combs, Mrs. G. C. Owen, Mrs. Burton Clark, Mrs. I. E. Ozanne, Mrs. J. P. Canavan, Mrs. F. C. Senn, Mrs. Loren E. Dickelmann, Mrs. D. H. Bath, Mrs. J. W. Lockhart, Mrs. Leonard Smith and Mrs. W. A. Wagner. Mrs. Combs was chairman of the committee. The next regular meeting will be held at the home of Mrs. T. D. Smith of Neenah.

News Items and Personals

The Wisconsin State Board of Medical Examiners has announced that the next regular examination and board meeting for the consideration of reciprocity applicants will be held at Marquette Medical School, 561 North Fifteenth Street, Milwaukee, Wisconsin, beginning Tuesday, June 29 through July 2.

—△—

The Crippled Children Division of the Department of Public Instruction assisted by the medical societies in the counties of Sheboygan, Outagamie, Kenosha, and Eau Claire-Dunn-Pepin held orthopedic clinics during the last month in Plymouth, Appleton, Kenosha, and Menomonie. The examinations were conducted by Dr. C. C. Schneider, Dr. Herman Schumm, and Dr. Walter P. Blount, all of Milwaukee, and Dr. R. E. Burns of Madison.

—△—

Dr. E. A. Pohle, professor of radiology, University of Wisconsin, was one of the guest speakers at the meeting of the American College of Surgeons in Denver, Colorado, April 7 to 9, presenting a paper on "Radiation Therapy in Advanced Malignant Disease." He also spoke at the University of Colorado Medical School on "Fundamental Principles of Radiation Therapy," participated with Dr. A. R. Kilgore of San Francisco in a cancer clinic held by Dr. C. F. Hegner at the Colorado General Hospital, and spoke over station KLZ on "The Present Status of the Treatment of Cancer."

—△—

Dr. Harold M. Coon, medical director of River Pines Sanatorium since 1934 and actively connected with the institution since 1923, has been appointed superintendent of the Wisconsin State Sanatorium at Wales. Dr. Coon succeeds Dr. R. D. Thompson who resigned to take charge of a state tuberculosis sanatorium at Orlando, Florida.

—△—

Dr. Carl N. Neupert, assistant state health officer of Madison, spoke to members of the Barron Civic Club on April 13. His subject was preventive medicine.

—△—

Parke, Davis & Company of Detroit, Michigan, has announced that their Minneapolis branch has recently moved to its newly erected building, located at 245 Second Avenue North.

—△—

Dr. Friedrich Eigenberger, Sheboygan, was a speaker at the regular meeting of the Advancement Association on April 5 at Sheboygan. His subject was "Cancer."

—△—

Dr. J. F. Wilkinson of Oconomowoc spent the week of April 5 attending medical and surgical conferences at the Mayo Clinic, Rochester, Minnesota.

Dr. Elmer L. Sevringhaus, assistant professor of medicine at the University of Wisconsin, appeared on the program of the annual meeting of the Northern Tri-State Medical Association at Jackson, Michigan, on April 13.

—△—

At their luncheon meeting at the Athern Hotel, April 1, the members of the Kiwanis Club of Oshkosh heard a talk on the subject of cancer, given by Dr. L. E. Dickelmann, Oshkosh.

—△—

Dr. Frank C. Walch of Clintonville spoke on "The Great Pyramid" at the Lutheran Men's Club of New London, April 1. His talk dealt with the scientific contributions received through a careful study of the ancient structures.

—△—

A history of Prairie du Chien covering approximately twenty years prior to the Civil War has been prepared by Dr. P. L. Scanlan. He has been a practicing physician in Prairie du Chien for nearly forty years, and began gathering material for the history fourteen years ago. Intimate study was made of local records and state records at Madison, and in addition he visited St. Louis, Quebec, Washington, and other points searching through original documents, official reports, and letters. Several months were spent in Washington in the Congressional Library.

—△—

Dr. H. A. Devine of Fond du Lac addressed the meeting of past commanders of the Major A. M. Trier Post of the American Legion on April 8 on the subject of "Blood Transfusion."

—△—

Dr. E. E. Neff of Madison sailed on April 16 from New York for England, where he will attend the meeting of the Royal Congress of Ophthalmology. He will also spend some weeks doing special postgraduate work in the various eye clinics of London. He plans to return about the middle of June.

—△—

Dr. Ludwig Gruenwald, a graduate of the University of Berlin, Germany, is now associated with Dr. J. S. Hansberry in Wonewoc. After practicing in Germany for four years, he came to America in 1936 and was associated with the Michael Reese Hospital in Chicago.

—△—

Dr. H. E. Kasten of Beloit attended the monthly meeting of the Chicago Urological Society in Chicago on March 25, at which time he presented a paper on "Cancer of the Kidney."

When Dr. John S. Gordon, Milwaukee, addressed members of the medical staff of Bellin Memorial Hospital on March 25, he also exhibited a collection of over 100 articles he had removed from patients' throats. His talk dealt with the removal of foreign objects from the esophagus.

—△—

Dr. Amy Louise Hunter, supervisor of the State Bureau of Maternal and Child Health, was chairman of the State committee for state-wide observance of Child Health Day on May 1.

Other members of the committee included Mrs. W. A. Hastings, state P. T. A. head; Dr. E. C. Hartman, Janesville, state P. T. A. summer round-up chairman; Mrs. A. W. Schorger, president of the Wisconsin League of Women Voters; Mrs. C. T. Walton, chairman of the State P. T. A. exceptional child committee; Mrs. E. H. Miles, child welfare chairman of the Wisconsin Federated Women's Clubs, and George Crownhart, secretary of the State Medical Society.

State employees who served on the committee are Mrs. Margaret Ingram, Crippled Children Division; Elizabeth Yerxa, Juvenile Department of the Board of Control; Mrs. Lois G. Nemec, supervisor of graded schools; Mary Brady, University extension nutritionist; Cornelia Van Kooy, supervisor of public health nursing; Martha Jenny, state advisory nurse; Dr. Carl N. Neupert, assistant state health officer, and Edith Bangham, home management supervisor for the federal resettlement administration.

—△—

Dr. H. A. Shearer of Beloit spent several weeks in April at the University of Indiana doing postgraduate clinical work in connection with diseases of the ear, nose, and throat.

—△—

Dr. and Mrs. William J. Egan of Milwaukee have returned from Guatemala City, Guatemala, where Doctor Egan read a paper before the Latin-American Congress of Physical Therapy. On the return trip, Doctor and Mrs. Egan stopped in New York where Doctor Egan attended the sessions of the First International Conference on Fever Therapy, March 29 to 31.

—△—

Dr. Ralph M. Waters, professor of anesthesia at the University of Wisconsin, addressed the University Medical School at the Service Memorial Institute in Madison on Thursday, April 1. His subject was "The Development of Anesthesiology."

—△—

Dr. Manfred Landsberg has opened an office at 4747 South Packard Avenue, Cudahy. He practiced in Berlin, Germany, before coming to this country in April, 1936.

—△—

Dr. E. L. Sevringhaus of Madison appeared before the church division of the Women's Crusade at their meeting on March 31. His subject was "Youth and Recreation."

Dr. G. V. I. Brown, professor of plastic surgery at the University of Wisconsin, gave an illustrated talk on "Plastic Surgery" at a meeting of the Business and Professional Women's Club in Milwaukee on April 13 in observance of national health week. The second speaker was Dr. Theodore Burbach of St. Mary's Hospital and Sacred Heart Sanatarium, who spoke on "The Romance of Surgery."

—△—

On Sunday afternoon, April 4, the civic clubs of Wittenberg gave a reception in honor of Dr. Lewis Rothman, who has been engaged in the practice of medicine in Wittenberg for fifty years. Doctor Rothman was one of the charter members of the Shawano County Medical Society and was active in the society for years. Seven hundred patients and numerous physicians from throughout the State paid tribute to the man who has meant so much to the welfare of his community.

—△—

Dr. Chalmer Davee, who has practiced at River Falls for several years with Dr. C. A. Dawson, has located at Ellsworth. Doctor Davee recently completed a postgraduate scholarship award course at the University of Wisconsin.

—△—

At the annual dinner meeting of the physicians' staff of Theda Clark Memorial Hospital at Neenah on April 15, Dr. R. C. Lowe was named president of the staff; Dr. H. L. Baxter, vice president; and Dr. P. T. O'Brien, secretary-treasurer. After dinner speakers were Dr. Ronald B. Rogers of Neenah who spoke of his observations at clinics in New York City which he recently attended, and Dr. F. Gregory Connell of Oshkosh who described his recent trip to Mexico.

—△—

Dr. T. L. Harrington of Milwaukee recently resigned from the staff of the Wisconsin Anti-Tuberculosis Association to take up his duties as medical director of River Pines Sanatorium at Stevens Point. Doctor Harrington replaces Doctor Coon, who is now located at State Sanatorium at Wales.

—△—

Dr. Henry B. Gifford of Juda was paid tribute in an interview over station WCLO on March 31. He was surprised in the radio studio with the presentation of a gift in recognition of fifty-four years' service to his community. Doctor Gifford was born in a log house in Orfordville in 1859, and was trained at Rush Medical College, Chicago, graduating in 1883.

—△—

Dr. William Werrell, Madison, spoke on "Symptoms and Control of Cancer" at the meeting of the Women's Club on April 7 at Verona.

—△—

Dr. Louis Fauerbach, assistant city health officer, discussed the control of cancer for the American Society for the Control of Cancer at the Blue Mounds community meeting on April 12. The address was illustrated.

BIRTHS

A daughter to Dr and Mrs. Thomas Burdon of Green Bay on March 26.

MARRIAGES

Dr. Albon W. Overgard of Stanley and Miss Dorothy Bowman of Durand on March 29, 1937.

DEATHS

Dr. James E. O'Connell, a practicing physician in Milwaukee for twenty-seven years, died at the Milwaukee General Hospital of pneumonia on April 6. He had been in ill health for several months.

Doctor O'Connell was born in Beechwood, Wisconsin, and was graduated from the old College of Physicians and Surgeons, now the Marquette University Medical School, in 1905. For a year after finishing school, he practiced at Bear Creek, Wisconsin, and then practiced with his twin brother, Dr. Daniel O'Connell, at Menasha, until coming to Milwaukee.

Surviving are his widow; a daughter, Jean; and three brothers, Doctor Daniel, Andrew L. of Batavia, Wisconsin, and Frank E. of Holbrook, Arizona.

Dr. Paul H. Rupp, superintendent and medical director of the Milwaukee Asylum for Chronic Insane at Wauwatosa, died on April 6. He had been ill for five months and had undergone an operation last December.

He was graduated from the Milwaukee Medical College in 1905 and practiced in Milwaukee until he entered the field of public health in 1915. Thereafter he was acting alienist in district and municipal courts until 1929 when he was appointed to the superintendency of the insane asylum. He is survived by his widow and a daughter, Georgianna.

Dr. John Logan Fleek, physician and surgeon of Brodhead since 1893, died Sunday, March 21, at his home at the age of seventy-five. A native of Green County, he set up practice in Brodhead after graduating from Rush Medical College, Chicago. He served as mayor for several terms and was active in Masonic circles. Surviving are his widow, a daughter, two brothers, and three sisters.

Dr. Frederick Ellsworth Sutherland of Janesville died at the Mercy Hospital, Janesville, on Saturday, March 20. He had been ill for the last year. He was born in Janesville in 1878, was graduated from the University of Wisconsin, and also received degrees from the Chicago Homeopathic Medical College in 1903 and Northwestern University Medical School in 1908.

Doctor Sutherland was a member of the Rock County Medical Society, of which he served as president in 1934; a member of the staff of Mercy Hospital, of which he had been president; a member of the teaching staff of Mercy Hospital for many years; a member and one of the founders of the Tri-State Medical Society; a member of the State Medical Society of Wisconsin and the American Medical Association; and an active representative of the State Board of Health in Janesville.

Doctor Sutherland is survived by his widow and a son, Frederick E., Jr., both of Janesville; daughter, Mrs. L. Humphrey Walz of Long Island, N. Y.; and his mother, Mrs. Adda Sutherland, Chicago Heights, Illinois.

SOCIETY RECORDS

New Members

G. N. Gillett, 223 Sixth St., Racine.
J. E. Eppley, Princeton.
F. J. Ansfield, Glidden.
O. V. Pawlisch, Reedsburg.
A. C. Krumpelbeck, Montreal.
A. N. Tousignant, Oconto.
W. O. Erxleben, 4719 W. North Ave., Milwaukee.
V. W. Komasinski, Rhinelander.
F. H. Wolf, 324 S. Tenth St., La Crosse.
J. C. Fox, 541 Cass St., La Crosse.
K. W. Davis, Omro.
V. G. Springer, Winneconne.
Carlton Wirthwein, 426 E. Burleigh St., Milwaukee.
J. A. MacKenzie, 212 W. Wisconsin Ave., Milwaukee.
Mary Fetter, 390 E. Division St., Fond du Lac.
Herman Wolf, U. S. Bank Bldg., Kenosha.
T. J. Doyle, 1507 Tower Ave., Superior.
E. R. Krumbiegel, 608 City Hall, Milwaukee.
L. A. Weisfeldt, 908 N. Twelfth St., Milwaukee.
H. E. Panetti, 1501 S. Sixteenth St., Milwaukee.

Changes in Address

E. V. Hicks, Blanchardville, to New Glarus.
E. F. Hoffman, Cameron, to 112 N. Hamilton, Madison.
F. O. Kuehl, Fifield, to Green Bay.
R. D. Thompson, Statesan, to Orlando, Florida.

CORRESPONDENCE

SYPHILIS IN INSTITUTIONS

April 1, 1937

Mr. J. G. Crownhart, Managing Editor
The Wisconsin Medical Journal
Madison, Wisconsin.

Dear Sir: In the article, "Syphilis in Wisconsin" by W. F. Lorenz, M. D., which appeared in the March issue of the Wisconsin Medical Journal, there were stated percentages purporting to show the incidence of syphilis in certain of the State penal and correctional institutions. The figures given were so much at variance with my impressions, which were the result of actual examination of all the admissions to these institutions over a period of

seven years, that I decided to consult the records of the Psychiatric Field Service of the State Board of Control. There is such a vast difference between the computations listed by Dr. Lorenz and the actual facts that I decided to set down the figures. Here are the results:

	Computations by Dr. Lorenz	*Exact incidence, records of Psychiatric Field Service, July 1, 1926–June 30, 1936.*
	Per cent	*Per cent*
Wis. State Prison	12.5	6.00
Wis. Indust. Home for Women	11.3	21.17
Wis. Indust. School for Girls	4.6	5.5
Wis. Indust. School for Boys	2.7	0.3
Wis. State Reformatory	None given	2.5
Wis. Prison for Women	None given	12.4

General incidence of syphilis in all the State penal and correctional institutions for the ten-year period, 1926 to 1936, was 4.8 per cent.

It is clearly evident that there is a great difference between Dr. Lorenz's computations and the actual incidence as shown by the records of the Psychiatric Field Service of the State Board of Control. Incidentally, the Psychiatric Field Service has no connection with the Psychiatric Institute of the University of Wisconsin, and anyone who knew the director of the Psychiatric Field Service, who was Dr. Frank C. Richmond, can appreciate the exactness of his data.

In another part of his paper, Dr. Lorenz states that barring accidents in the handling of specimens, mislabeling, reporting, etc., he can assure the profession that a 3 or 4 plus report from his laboratory means active syphilis.

Let me caution the medical profession about accepting a positive 3 or 4 plus Wassermann as being indicative of active syphilis. I have case records of four different patients wherein a positive 3 or 4 plus Wassermann, reported on two or more consecutive specimens which were examined at the laboratory of the Wisconsin Psychiatric Institute, were subsequently reported as negative from the same laboratory. In each case the Kahn test was negative at all times, there was no clinical evidence of syphilis, and the absence of syphilis was verified by consultants. These cases were seen in my private practice. I do not include any cases seen while physician for the Psychiatric Field Service.

Let me say in conclusion, that I am deeply appreciative of the splendid work done by the workers in the State laboratory. These men were always courteous and cooperative, and the tremendous amount of work they do is evident from the article written by Dr. Lorenz. Laboratory service is a great help for the physician, and in many cases indispensable, but the laboratory results should always confirm the clinical picture as a whole. When they do not, be very certain that you do not start treatment for syphilis, because one treatment will forever eliminate the possibility of refuting the laboratory diagnosis. Incidentally, I always verify a positive Wassermann result by checking the blood against the Kahn and Klein test. In one of the cases cited above a serious error was avoided only by the patient refusing treatment for syphilis (diagnosed by two consecutive 4 plus Wassermanns from the Psychiatric Institute), and abruptly leaving the hospital because the attending physician insisted on treating her for alleged lues.

Yours very truly,

SAM:S STUART A. MCCORMICK, M. D.

FROM THE AUTHOR

J. G. Crownhart, Secretary April 7, 1937
Wisconsin Medical Society
119 E. Washington Ave.
Madison, Wisconsin.

My dear Mr. Crownhart: I appreciate the opportunity of making a reply to Dr. McCormick's letter.

The data reported in my recent article are collected in a very simple manner. The incidence of syphilis in the penal institutions was arrived at by counting the number of syphilitic cases among the new admissions during a two-year period. At various times during the last twenty years this computation has been reported and at no time have the physicians connected with these institutions suggested any discrepancies between our reports and their actual experiences. It is difficult for me to see how Dr. McCormick can have accurate information since the various physicians connected with these institutions obtain the blood and send it to us for examination. Our reports go back to the physicians at these institutions.

I am thoroughly familiar with the work of the Psychiatric Field Service. For several years the Psychiatric Field Service was carried on under my direct supervision. I have always maintained a close contact with its work. I am familiar with the biennial reports and publications that have been made from time to time by Dr. Frank C. Richmond. Nowhere in any published report from the Board of Control or the Psychiatric Field Service are there any percentages such as quoted by Dr. McCormick.

Concerning the reliability of our serological service, my only answer is the report made to us by the United States Public Health Service after our laboratory took part in a study undertaken in 1936. The United States Public Health Service rated our blood test as 100 per cent specific. We failed in sensitivity, falling considerably below certain flocculation tests. However, I drew attention to the occasional false positive reaction that may occur. Dr. McCormick quoted merely a part of my suggestion to the profession. He failed to notice, or chose to ignore, the sentence immediately following the part he quotes on page 201, Wisconsin Medical Journal, March, 1937.

I wish to reiterate that the data reported were carefully and conscientiously collected and that the report is an accurate account of the prevalence of syphilis in our State charitable and penal institutions. Very truly yours,

WFL/K W. F. LORENZ, M. D.

Preliminary Program Announced for National Tuberculosis Association May 31-June 3

THE preliminary program for the thirty-third annual meeting of the National Tuberculosis Association in the Milwaukee Auditorium on May 31–June 3 has now been announced. The meeting will be opened with a general session at 8:15 p. m., Monday, the thirty-first, with the address of the president, report of the managing director, award of the Trudeau Medal, and report of the Committee on Nominations. The scientific sessions open at the auditorium at 9:30 a. m., Tuesday, June 1, and the program follows:

PATHOLOGICAL SECTION

Tuesday, June 1, 9:30 A. M.

Allergic State and Its Relation to Hypersensitiveness and Resistance. J. Bronfenbrenner, Ph.D., Department of Bacteriology and Immunology, School of Medicine, Washington University, St. Louis, Mo.

Allergic and Desensitized Guinea Pigs: A Study of Factors Bearing Upon the Problem of Immunity in Tuberculosis. Henry S. Willis, M.D., Medical Director, William H. Maybury Sanatorium, Northville, Mich.

The Sero-Coagulation Test (Weltmann) in Pulmonary Tuberculosis. S. A. Levinson, M.D., and R. I. Klein, M.D., University of Illinois College of Medicine and Cook County Hospital, Chicago, Ill.

The General Tissue and Humoral Response to Avirulent Tubercle Bacilli (BCG). Sol Roy Rosenthal, M.D., Tice Laboratory of the Chicago Municipal Tuberculosis Sanitarium, Chicago, Ill.

Qualitative and Quantitative Evaluation of Old Tuberculin and Purified Protein Derivative (P.P.D.) with X-Ray Correlation on 1,003 Children. Paul D. Crimm, M.D., Medical Director, Darwin M. Short, M.D., and H. E. Wood, M.D., Boehne Hospital, Evansville, Ind.

Gastric Lavage as a Means of Diagnosis in Pulmonary Tuberculosis. Miss Asya Stadnichenko and Seymor J. Cohen, M.D., Chicago, Ill.

Wednesday, June 2, 2:00 P. M.

Attenuation by X-Ray of the Virulence of Human Tubercle Bacilli. W. F. Drea, M.D., Foundation for Research in Tuberculosis, Colorado College, Colorado Springs, Colo.

Variations in the Histogenesis of Tuberculous Lesions and in the Hematological Response Following Inoculation with Cultures Differing in Virulence. Kenneth C. Smithburn, M.D., The Rockefeller Institute for Medical Research, New York City.

Non-Caseating Tuberculosis. Max Pinner, M.D., Hermann M. Biggs Memorial Hospital, Ithaca, N. Y.

The Progressive Primary Complex. Oscar Auerbach, M.D., Sea View Hospital, New York City.

The Histopathological basis for the X-Ray Diagnosability of Pulmonary Miliary Tuberculosis. Paul E. Steiner, M.D., Department of Pathology, University of Chicago, Chicago, Ill.

CLINICAL SECTION

Tuesday, June 1, 2:00 P. M.

Fluoroscopy Versus Physical Examination in the Detection of Pulmonary Tuberculosis. W. H. Ordway, M.D., Physician-in-charge, Metropolitan Life Insurance Company Sanatorium, Mount McGregor, N. Y., and H. H. Fellows, M.D., Assistant Medical Director, Metropolitan Life Insurance Company, New York City.

The Relative Value of Fluoroscopic, X-Ray and Physical Examination in a Case-Finding Program in University Students. Ruth E. Boynton, M.D., Director of Students' Health Service, and Associate Professor of Preventive Medicine and Public Health, H. S. Diehl, M.D., Dean of Medical Sciences and Professor of Preventive Medicine and Public Health, and Charles E. Shepard, M.D., Students' Health Service, University of Minnesota, Minneapolis, Minn.

Hernia of Lung. Ephraim Korol, M.D., Veterans' Administration Facility, Lincoln, Neb.

Bronchial Factor in Pulmonary Cavitation. Sidney J. Shipman, M.D., Assistant Clinical Professor of Medicine, University of California Medical School; and Director, Chest Clinic, University of California Clinic, San Francisco, Calif.

Factors Influencing the Course of Tuberculous Infection in Young Children. Miriam Brailey, M.D., Harriet Lane Tuberculosis Clinic, Johns Hopkins Hospital, Baltimore, Md.

The Psychotherapy of Rehabilitation of Patients in Tuberculosis Hospitals. Clarence M. Hincks, M.D., Director, National Committee for Mental Hygiene, New York City.

The Roentgenologic Features of Tuberculosis of Bone and Joint. Charles G. Sutherland, M.D., Mayo Clinic, Rochester, Minn.

Wednesday, June 2, 9:30 A. M.

Modern Treatment of Tuberculosis

Diaphragmatic Paralysis. Forrester Raine, M.D., Assistant Clinical Professor of Surgery, Marquette University School of Medicine, Milwaukee, Wis.

Pneumoperitoneum in Treatment of Pulmonary Tuberculosis. H. G. Trimble, M.D., Chief of Lung Service, Alameda County Hospitals, Oakland, Calif., and Buford Wardrip, M.D., Medical Superintendent, Alum Rock Sanatorium, San Jose, Calif.

Discussion. A. L. Banyai, M.D., Wauwatosa, Wis.

A Five-Year Comparative Study of Pneumothorax Treatments in the White and Negro Races. A. Worth Hobby, M.D., Staff Physician, Atlanta Tuberculosis Clinic, Atlanta, Ga.

A Report of the Results of Collapse Therapy on 2,500 Cases of Pulmonary Tuberculosis. Frederick Tice, M.D., Allan J. Hruby, M.D., and Karl J. Henrichsen, M.D., Chicago Municipal Tuberculosis Sanitarium, Chicago, Ill.

Selective Thoracoplasty with Lung Mobilization. The Conservative Goal in Permanent Collapse Therapy. R. H. Overholt, M.D., The Lahey Clinic, Boston, Mass.

Intestinal Tuberculosis. G. C. Bellinger, Superintendent, Oregon State Tuberculosis Sanatorium, Salem, Oregon.

SOCIAL WORK SECTION

Tuesday, June 1, 2:00 P. M.

The Foster Home Idea as Applied to the Care of Tuberculous Children. Jacob Kepecs, Superintendent, Jewish Home Finding Society, Chicago, Illinois.

Title to be announced. Ruth Emerson, Director, Social Service Department, University of Chicago, Chicago, Ill.

Finding Tuberculosis in Apparently Healthy Adults. A symposium. A. A. Pleyte, M.D., Harold Holand, and Metta Bean, Wisconsin Anti-Tuberculosis Association, Milwaukee, Wis.

Wednesday, June 2, 9:30 A. M.

Present-Day Relations and Activities of Tuberculosis Associations to School Health. Agnes Samuelson, Superintendent, State Department of Public Instruction, Des Moines, Iowa.

Importance of Follow-Up Procedures after Tuberculosis Case-Finding Studies in Schools and Colleges. Charles E. Shepard, M.D., Associate Professor of Hygiene and Physical Education; and Director, Men Students' Health Service, Stanford University, Calif.

Can Tuberculosis be Controlled? W. H. Ordway, M.D., Physician-in-charge, Metropolitan Life Insurance Company Sanatorium, Mount McGregor, N. Y., and H. H. Fellows, M.D., Assistant Medical Director, Metropolitan Life Insurance Company, New York City.

Sex Differences in Tuberculosis Mortality in the United States. (Exhibit to be included.) C. C. Dauer, M.D., Department of Preventive Medicine, School of Medicine, Tulane University, New Orleans, La.

ADMINISTRATIVE SECTION

Tuesday, June 1, 9:30 A. M.

Present-Day Experience in Rehabilitation—Summary of the Experience in Various Rehabilitation Projects. Beulah W. Burhoe, Ph.D., Rehabilitation Secretary, National Tuberculosis Association, New York City.

Finding the Tuberculosis Patient Through a Public Health Nursing Service. Fannie Eshleman, Supervisor of Nurses, Henry Phipps Institute, Philadelphia, Pa.

How the Tuberculosis Associations Can Cooperate with the Practicing Physician in Finding Early Tuberculosis. Robert B. Kerr, M.D., Executive Secretary, New Hampshire Tuberculosis Association, Manchester, N. H.

Wednesday, June 2, 2:00 P. M.

Summary of the Report by the Committee on Tuberculosis Among Negroes. C. Howard Marcy, M.D., Medical Director, Tuberculosis League of Pittsburgh, Pittsburgh, Pa.

Measuring Health Education. W. W. Bauer, M.D., Director Bureau of Health and Public Instruction, American Medical Association, Chicago, Illinois.

Tuberculosis Control in British Columbia. W. H. Hatfield, M.D., Medical Director, Tuberculosis Control, Provincial Board of Health, Vancouver, B. C.

A New Administrative Technique in Tuberculosis Case Finding. Henry F. Vaughan, Dr. P. H., Commissioner, and Bruce H. Douglas, M.D., Tuberculosis Controller, Department of Health, Detroit, Mich.

JOINT SYMPOSIUM

Thursday, June 3, 9:30 A. M.

Evolution of Tuberculosis Dispensary Control

William S. Middleton, M.D., Dean of Medical School, University of Wisconsin, Presiding.

Historical Aspects. Jabez H. Elliott, M.D., Professor, History of Medicine, Medical School, University of Toronto, Toronto, Ont.

Clinic Standards and Clinic Practice. Herbert R. Edwards, M.D., Director, Bureau of Tuberculosis, City Department of Health, New York City.

The Tuberculosis Clinic as a Consultation Center for Private Physicians. Israel Steinberg, M.D., Consultation Chest Service, Bellevue–Yorkville Health District, City Department of Health, New York City.

Public Health Aspects of the Tuberculosis Sanatorium. (Extension of sanatorium services, consultation service, clinics, etc.) Chesley Bush, M.D., Superintendent, Arroyo Sanatorium, Livermore, Calif.

Discussion:

Alton S. Pope, M.D., Boston, Mass.
J. Burns Amberson, Jr., M.D., New York City.
G. C. Bellinger, M.D., Salem, Ore.

PRELIMINARY PROGRAM
AMERICAN SANATORIUM ASSOCIATION

Monday, May 31, 9:30 A. M.

Business Meeting.
Reports of Committees.

Tuberculous Pulmonary Infection in Hospital Personnel. J. A. Myers, M.D., Professor of Medicine and Preventive Medicine and Public Health, University of Minnesota, Minneapolis, Minn.

The Evolution of Chest Roentgenographic Technique with Special Reference to the Modern Concept. Gilberto S. Pesquera, M.D., Metropolitan Life Insurance Company Sanatorium, Mount McGregor, N. Y., and Homer L. Sampson, Sc. D., Director, Roentgenological Laboratory, Trudeau Sanatorium, Trudeau, N. Y.

Management of the Poor Risk Thoracoplasty Patient. Cameron Haight, M.D., Assistant Professor of Surgery, University of Michigan Medical School, Ann Arbor, Mich.

Monday, May 31, 2:00 P. M.

The Early Diagnosis of Tuberculosis in the Negro. P. P. McCain, M.D., Medical Director, North Carolina Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C.

The Behavior of the Mediastinum in Diseases of the Lungs. Charles O. Giese, M.D., Colorado Springs, Colo.

The Diagnosis and Treatment of Tuberculous Lesions of the Trachea and Bronchi. Wadsworth Warren, M.D., Arthur E. Hammond, M.D., and William Tuttle, M.D., Herman Kiefer Hospital, Detroit, Mich.

Discussion. John B. Barnwell, M.D., Associate Professor of Internal Medicine, University of Michigan Medical School.

Current Procedures of Value in the Diagnosis of Pulmonary Disease. William H. Oatway, Jr., M.D., Madison, Wis.

Radio Programs on Three Stations

THE Committee on Health and Public Instruction of the State Society has arranged for the presentation of its recorded health messages over three radio stations in the State. Stations now presenting the recorded health messages are WHA, Madison; WHBY, Green Bay; and WEAU in Eau Claire.

The programs are presented three times each week under the joint sponsorship of the State Medical Society and the county medical society in the area served by the radio station. An office card has been prepared by the committee for display in the members' offices inviting their patients to listen to "The Guardians of Your Health."

Each message is designed to give the listener authentic and reliable health information on a diversified list of subjects. Included in this list are such subjects as cancer, appendicitis, diphtheria, goiter, rickets, lockjaw and varicose veins. The information contained in the presentations is based on material secured from the Bureau of Health and Public Instruction of the American Medical Association and Hygeia, the Health Magazine. Original dramatizations and talks are also given.

The committee has been most fortunate in securing the assistance of the radio players at the University of Wisconsin using their talent for portraying the health messages in dramatic form.

Physicians residing in the areas served by WHA, WHBY or WEAU may recommend to their patients "The Guardians of Your Health."

I INVITE YOU

to listen to

"The Guardians of Your Health"

Presented

Each Tuesday, Wednesday, Thursday

AT 6:45 P. M.

Over WHBY (1200)

By The Woman's Auxiliary to the Brown-Kewaunee-Door County Medical Society and The State Medical Society of Wisconsin

THE JOURNAL BOOKSHELF

BOOKS RECEIVED FOR REVIEW

Synopsis of Pediatrics. By John Zahorsky, M.D., professor and director of pediatrics, St. Louis University School of Medicine; pediatrician in chief to the St. Mary's group of hospitals; assisted by T. S. Zahorsky, M.D., instructor in pediatrics, St. Louis University School of Medicine, and assistant pediatrician to the St. Mary's group of hospitals. Second edition. Price $4. St. Louis: The C. V. Mosby Company, 1937.

Memoranda of Toxicology. By Max Trumper, Ph.D., consulting clinical chemist and toxicologist. Third edition. Philadelphia: P. Blakiston's Son & Co., Inc., 1937.

Why We Do It. An elementary discussion of human conduct and related physiology. By E. C. Mason, M.D., professor of physiology, University of Oklahoma School of Medicine, Oklahoma City. Price $1.50. St. Louis: C. V. Mosby Company, 1937.

The Cardiac Glycosides. By Arthur Stoll, M.D., Basle, Switzerland. London: The Pharmaceutical Press, 1937.

An Introduction to Medical Science. By William Boyd, M. D., professor of pathology in the University of Manitoba; pathologist to the Winnipeg General Hospital, Winnipeg, Canada. Philadelphia: Lea & Fibiger, 1937.

A Handbook of Ambulant Proctology. By Charles E. Blanchard, M. D., editor of the Bulletin of Office Practice. Youngstown, Ohio: Medical Success Press, 1937.

Materia Medica, Toxicology and Pharmacognosy. By William Mansfield, Phar. D., dean and professor of materia medica and toxicology, Union University, Albany College of Pharmacy, Albany, N. Y. St. Louis: The C. V. Mosby Company, 1937. Price $6.75.

Light Therapy. By Frank Hammond Krusen, M. D., associate professor of physical medicine, The Mayo Foundation, University of Minnesota; head of the section on physical therapy, The Mayo Clinic. Second edition, revised and enlarged. New York: Paul B. Hoeber, Inc. Price $3.50.

Handbook of Orthopaedic Surgery. By A. R. Shands, Jr., M.D., associate professor of surgery in charge of orthopaedic surgery, Duke University School of Medicine, and chief of the orthopaedic service, Duke Hospital, Durham, North Carolina. In collaboration with R. B. Raney, M.D., instructor in orthopaedic surgery, Duke University School of Medicine. Price $5. St. Louis: The C. V. Mosby Company, 1937.

Cataract. Its preventive and medical treatment. By A. E. David, M.D., consultant ophthalmic surgeon, New York Postgraduate Medical School and Hospital; Manhattan State Hospital; and United Port Chester Hospital. Philadelphia: F. A. Davis Co., 1937.

Clinical Laboratory Diagnosis. By S. A. Levinson, M.D., director of laboratories, Research and Educational Hospitals, Chicago; and R. P. MacFate, M.S., assistant director of laboratories, Research and Educational Hospitals, Chicago. Price $9.50. Philadelphia: Lea & Febiger, 1937.

A Medical Formulary. By E. Quin Thornton, M.D., emeritus professor of therapeutics in the Jefferson Medical College, Philadelphia. Fourteenth edition, thoroughly revised. Philadelphia: Lea & Febiger, 1937.

Diabetes. By A. M. Sindoni, Jr., M.D., chief of the diseases of metabolism, St. Agnes Hospital, Philadelphia. Introduction by Morris Fishbein, M. D., editor, Journal of the American Medical Association. New York: Whittlesey House, 1937.

Medical Urology. By I. S. Koll, M.D., attending urologist, Michael Reese Hospital, Chicago. Price $5. St. Louis: The C. V. Mosby Company, 1937.

Surgical Pathology of the Thyroid Gland. By A. E. Hertzler, M.D., surgeon to the Agnes Hertzler Memorial Hospital, Halstead, Kansas; professor of surgery, University of Kansas. Philadelphia: J. B. Lippincott Company, 1937.

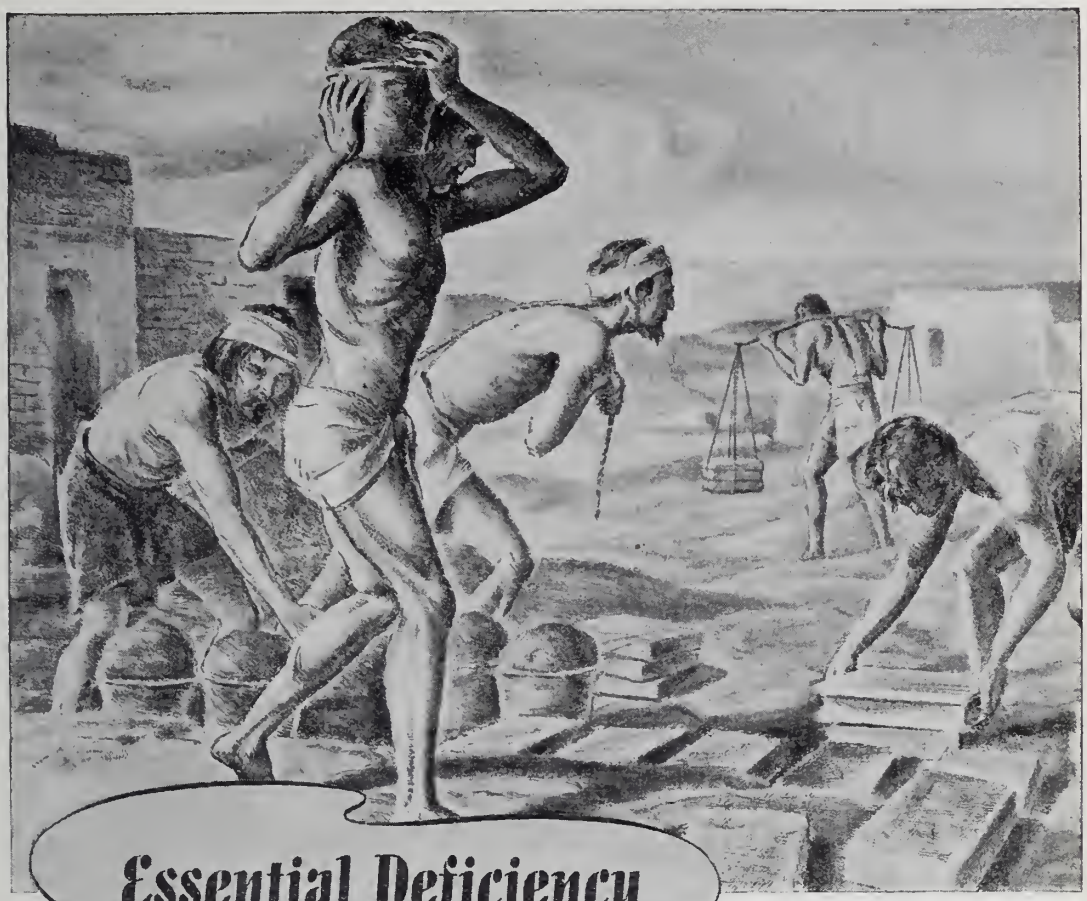
BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

A Health Education Workbook. By Kathleen Wilkinson Wootten, M. A., professor of health; head, department of health and physical education, Georgia State College for Women, Milledgeville, Georgia. New York: A. S. Barnes and Company, Inc., 1936.

This book is an outline of 273 pages presented as a suggested plan of study for a health education course in a teachers' training school. It has developed as the result of the author's years of experience in teaching a college course in health education required of all the upper classmen in a state college.

The book is divided into thirty-two chapters, each of which takes up one phase of health education, such as "The Parents' Part in Healthful Education" or "Healthful School Living: Location, Construc-



Essential Deficiency in Pernicious Anemia

"*Bricks without straw*"—more practicable than adequate treatment of pernicious anemia without the antianemic material such as is contained in liver.

● The essential nature of pernicious anemia appears to be a nutritional deficiency. Such "building stones" as are required for normal red blood cell formation are available to the blood-forming organs only in less than optimal amounts. These deficient elements may be supplied by adequate liver therapy.

The parenteral administration of the antianemic material contained in liver assures utilization by the body of the necessary antianemic substance.

Solution Liver Extract Concentrated, Lilly, is supplied in 10-cc. rubber-stoppered ampoules and in packages of four 3-cc. rubber-stoppered ampoules.

Solution Liver Extract, Lilly, is supplied in 10-cc. rubber-stoppered ampoules.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

tion, Equipment of the School," and so on through all the various phases of health education. The first part of each chapter presents a concise outline of that subject, the second part suggests activities such as individual investigations, and the third part gives a bibliography for that particular subject. At the end of each chapter is a space for the student's notes.

Although the workbook is prepared primarily for the training of teachers, there are chapters which would be of value to anyone interested in health education. The references would be especially helpful to those who might be called upon to present a paper on health education before a lay group.

The reviewer feels that the author has fulfilled her purpose in this book and that it should be of value to those who are training teachers. **R. C.**

Handbook of Health Education. By Ruth E. Grout, director of health education study, Cattaraugus County, New York. New York: Doubleday, Doran and Company, Price $1.80.

The author presents a practical health program based upon her experience and the experience of other teachers in the rural schools of Cattaraugus County, New York. The text is intended for use in the classroom and is written in a free, easy, readable style. No philosophical abstractions are included, and the ideas are presented in a simple, plain, easily understandable, practical way. The book contains many illustrations and photographs demonstrating the material.

The subject matter of the text is, in effect, propaganda on preventive medicine, the encouragement of better-living conditions in some rural sections, the development of a health consciousness at an age when the individual is impressionable, and in general makes suggestions for the attainment and accomplishment of the fuller and richer life. In some places Miss Grout includes and enlists the parents in her schemes in an effort to create a better feeling and understanding among those involved. She emphasizes the necessity for tact among new teachers, who enter a community with ideas of making revolutionary changes and having the community sit by and applaud. She gives methods of attack.

Miss Grout covers such subjects as health service in the school with instruction in the daily observation for deviations from normal; states health aims; includes such things as exercise, play, sleep, eating. She suggests education in such fields as smallpox vaccination, diphtheria immunization, typhoid fever, etc. The author relates the knowledge to specific community problems, as water supply, milk supply, sewage disposal, etc. In relation to the school involved she would bring in the problems of ventilation, temperature regulation, lighting problems, and playground situations. Home environment is thus approached in the daily chores of farm children. Miss Grout then illustrates basic activities relating to growth of the individual by its relation to some of the more fundamental facts. The third part of the text concerns experiences in health education, more with reference to the prevention of disease, and trips to water purification plants and sewage disposal plants are suggested. Positive health suggestions are made by posters and other visual or vocational methods.

In all, the book is a good one, carefully compiled and edited, but it must not be used as an outline of clean and proper living, warns the author, or, the critic ventures the comment, life would consist of making model farms, drawing pictures of right and wrong ways to eat apples, learning the evils of coffee drink, or deviling one's parents about the plumbing, lighting, or heating. L. R. C.

Autopsy. By Otto Saphir, M. D., chairman, Nelson Morris Institute for Medical Research; pathologist, Michael Reese Hospital; associate professor of pathology, University of Illinois Medical School, Chicago. New York: Paul B. Hoeber, Inc. Price $5.

This book is more concise than most of the volumes devoted to this subject, and thus may prove more useful to the beginner or the clinician doing an occasional autopsy. This very briefness, however, imposes on the author an obligation of extreme accuracy which has not been fulfilled. For instance, on page 51 in the discussion of empyema the statement is made that the source may be "a pneumonia which may still be present in the stage of organization or may have healed." This would certainly give the tyro the impression that organization is one of the usual stages of a pneumonia.

On page 86 the statement is made that in arteriolar nephrosclerosis "death results from myocardial insufficiency or *cerebellar* haemorrhage." This is undoubtedly a typographical error, but a very important one, since it is contained in a simple unqualified statement.

On page 153 the author says "Massive collapse [of the lung] is a condition which sometimes follows operative procedure," but does not mention the presence of a mucous plug in a bronchus as a probable explanation for the phenomenon.

These are only a few examples. It is recognized that this book is not intended as a substitute for a textbook of pathology, but the reviewer feels that such errors are out of place in any book, no matter how limited its scope.

Another fault is a slight carelessness on the part of the author in the use of English. The incorrect use of the word "reveal" throughout the book is one example.

On the other hand many excellent points are evident. The absence of wordy discussions, the inclusion of almost every condition which could be sought for at an autopsy, and the presentation of many excellent tables, are a few of the virtues to be found here. All in all, this volume should be a very useful addition to the library of any medical man. G. R.

Reduces Hazards in Arsenical Antisyphilitic Treatment

Mapharsen (meta-amino-para-hydroxy-phenylarsine oxide hydrochloride) is available in single-dose ampoules containing 0.04 and 0.06 gram, supplied in individual packages with or without distilled water. Also in ten-dose ampoules, for use by hospitals and clinics, containing 0.4 and 0.6 gram.

PARKE, DAVIS & COMPANY

DETROIT · MICHIGAN

The World's Largest Makers of Pharmaceutical and Biological Products

Medical Classics. Compiled by E. R. Kelly, M. D., department of surgery, Albany Medical College. The Williams and Wilkins Company, Baltimore, Maryland.

The purposes which this new project serves so beautifully are at least four-fold: to print original articles on important medical subjects in their entirety; to supply biographical information, and its sources, concerning the authors; to present glimpses of the illustrations and texts by photograph; and to make these works available not only to the bibliophile and medical historian but to the physicians in far places, who almost invariably retain (concealed, perforce) the urge to read and teach.

The current presentation, Number One of Volume One, contains in outline form the life and works of that versatile, acute, and prolific physician, surgeon, and author Sir James Paget, and the descriptions which he gave of osteitis deformans and the disease of the nipple, both of which now carry his name. These reports are far from being archaic and stuffy, since the descriptions of sixty years ago are lucid, unimproved upon today, and the causes of the lesions are still almost entirely speculative.

"Medical Classics" is described as a book in spite of its periodical publication. The style simple, the type readable, the illustrations satisfactory; only the deckle-edged and unslit pages condemn it to certain eyes. The idea is an excellent one; the first issue auspicious; it is to be expected that translations will be of high standard. W. H. O.

The Diseases of Infants and Children. By J. P. Crozer Griffith, M.D., emeritus professor of pediatrics in the University of Pennsylvania; consulting physician to the Children's Hospital, Philadelphia; and A. Graeme Mitchell, M.D., B. K. Rachford, professor of pediatrics, College of Medicine, University of Cincinnati; medical director and chief of staff of the Children's Hospital of Cincinnati. Second edition, revised and reset. Cloth, $10 net. Philadelphia: W. B. Saunders Company, 1937.

The 1937 edition of this well-known textbook maintains the high standards of the earlier publications of these authors. This book is definitely improved because the chapters on infant feeding have been simplified without loss of usefulness, and more space is devoted to the subjects of growth and development of the infant and child. The arrangement of the volume into divisions and sections remains the same as that of the 1933 edition and the authors have retained the very complete bibliographies at the end of each chapter.

A new and valuable feature of the book lies in the use of italics to emphasize important points in the discussion. The text has been completely revised and contains excellent discussions of the latest contributions pertaining to the field of pediatrics.

K. B. McD.

Preoperative and Postoperative Treatment. By Robert L. Mason, M. D., assistant in surgery at the Massachusetts General Hospital. Cloth, $6 net. Philadelphia: W. B. Saunders Company, 1937.

This book is divided into two parts. The first, dealing with general principles, seems to adequately cover the conditions affecting the operative risk, the more common complications and the principles of preoperative and postoperative care. There appears to have been a real effort to place all of these matters upon as sound physiological bases as possible. The chapter on postoperative pulmonary complications is particularly interesting in its inclusion of a statistical study of such conditions in the Massachusetts General Hospital. The discussion of thrombosis is very clear and logical and may well dispel some common misconceptions regarding this complication. The chapter on burns admirably covers the subject, though one feels that only the broadest sort of interpretation could justify its inclusion in a book with this title.

The second part takes up the regional application of general principles of preoperative and postoperative care. The fields of general surgery, ear, nose and throat, gynecology and orthopedics, are all well-covered and there is a good deal of specific and practical information given.

In places the specific procedures recommended are those favored by the group to which the authors belong. While other surgeons may not agree with all of their methods, the majority will be in accord with the authors as to the statement of the general principles involved. For the most part the volume successfully covers the essential points in preoperative and postoperative care, and the treatment is adequate, though brief. One of its chief virtues is the inclusion of short bibliographies following the more important chapters, giving references to representative groups of papers. The book should prove quite useful to anyone desiring to obtain in one volume a brief discussion of the essentials. R. J. N.

Skin Diseases in Children. By G. M. MacKee, M.D., professor of clinical dermatology and syphilology, New York Postgraduate Medical School, Columbia University; and A. C. Cipollarno, M. D., associate in dermatology and syphilology, New York Postgraduate Medical School, Columbia University. New York: P. B. Hoeber, Inc., 1936.

This is a splendid handy-sized volume which should be of great value to medical students as well as to the practitioners of general medicine. Its contents are conveniently divided into twenty chapters and is understandably described in language which is not too dermatologically orthodox. The name of the text is perhaps somewhat misleading, for the information contained in it is in many instances applicable to adult cases as well as those in children. Another feature of the book is the presentation of the therapeutic suggestions. This is excellently done and will be welcomed by its readers.

R. L. McI.

pp. 399-402 missing

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

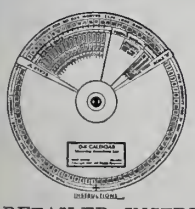
Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

CALENDAR METHOD OF BIRTH CONTROL



A SLIDE RULE which calculates accurately the sterile and fertile days in menstrual cycles according to Ogino–Knaus Theory. Can be adjusted to coincide with the various menstrual cycles of women and designates quickly the exact days that are fertile and those that are sterile. It points out the most favorable time to bring about pregnancy.

DETAILED INSTRUCTIONS easy to follow accompany each Calendar.

Price—Single Calendar $1.00—12 Copies $6.00

SCIENTIFIC INSTRUMENTS, Inc.
3410 West 60th Place, Dept. WM-5 — Chicago, Illinois

IN CASES OF

Malnutrition

the use of this

"PROTECTIVE FOOD DRINK"

is indicated

THE DIETETIC VALUES of Cocomalt establish it as a "protective food" in the opinion of many physicians.

For instance, Cocomalt is rich in Calcium and Phosphorus—but more than that Cocomalt also has a rich Vitamin D content which enables the system to utilize the Calcium and Phosphorus. Each glass of Cocomalt in milk provides .33 gram of Calcium, .26 gram of Phosphorus, 81 U.S.P. units of Vitamin D.

Furthermore, each ounce of Cocomalt, the amount used to prepare one cup or glass, contains 5 milligrams of Iron in readily-assimilated form. Thus, three glasses or cups of Cocomalt supply the average normal daily iron requirement.

These important and vital food essentials plus the protein and carbohydrate content signalize the value of Cocomalt for the diet of expectant mothers, undernourished children, elderly people, nursing mothers, convalescents. Cocomalt is easily digested, quickly assimilated.

Cocomalt is Palatable and Inexpensive

Two added virtues that make this "protective food drink" deservedly popular with physicians and patients alike. Of distinctive and appetizing taste, this protective food drink costs little in proportion to its merit. It may be served Hot or Cold as you prescribe.

Cocomalt is sold at drug and grocery stores in ½-lb. and 1-lb. purity sealed cans. Also, for professional use, in 5-lb. cans available at a special price.

Cocomalt is the registered trade-mark of R. B. Davis Co., Hoboken, N. J.

USE COUPON FOR FREE PROFESSIONAL SAMPLE

R. B. DAVIS CO., Hoboken, N. J., Dept. ZZ-5.
Please send me a trial size can of Cocomalt without charge.

Dr. _____

Street and Number _____

City _____ *State* _____

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE—The complete set of eye, ear, nose, and throat instruments of the late Dr. G. I. Hogue. A diathermy and surgical unit costing $372.50, price now $75. A transformer $100, now $40. A Keystone telebinocular $20. New Cameron set $225, now $100. Will also sacrifice many eye, ear, nose, and throat instruments for $75. Address replies to Mrs. G. I. Hogue, 1030 North Marshall Street, Milwaukee.

FOR SALE—30 M. A. oil condenser type x-ray with fluoroscope, screen, and darkroom equipment at $125, and large oil condenser type diathermy at $65. Delivered anywhere in Wisconsin. Other office equipment also in good condition. Address replies to No. 65 in care of Journal.

FOR SALE—A $700 general practice of medicine and surgery in southern Wisconsin city of 4,500. Ten minute drive to hospital. Opportunity to do refractions if qualified. Will remain to introduce purchaser. Splendid schools and churches. Reason for sale, am specializing. Cash income last year $9,900; an insured income from the start. Purchase price includes drugs and 1,000 case histories. Terms given on good security. This is an unusual opportunity for one who is capable. Address replies to No. 63 in care of Journal.

FOR SALE—New examining table and complete office equipment. Very reasonable prices. Address Box G, Cumberland, Wisconsin.

FOR SALE—Sanatorium site, Platteville. Well-built house, new Oilomatic, seven acres of land. Address replies to Miss Elisabeth McGregor, office of Attorney General Madison, Wisconsin.

FOR SALE — Two Caulk-Kackley prostatic punches; new, latest models, sizes 27 and 30. One has never been used and the other has been used but once. Address replies to Sparta Clinic, Sparta, Wisconsin.

FOR SALE—General practice and office equipment in Brodhead. Population 1,700. Office occupied by same doctor for 37 years. Reasonable if taken at once. Address replies to Estate of Dr. John L. Fleek, Brodhead, Wisconsin.

FOR SALE—Practice in southern Wisconsin village. New home and office combined. Near hospital. Transferable appointments. Good dairy section. Owner leaving for postgraduate work. Address replies to No. 68 in care of Journal.

WANTED—One or two additional specialists to share an excellently equipped and furnished suite in a Milwaukee downtown office building. Secretarial, x-ray, and laboratory facilities provided. Address replies to No. 59 in care of the Journal.

WANTED—Assistant on a salary basis in an established clinic in small rural community. Desire Wisconsin or Minnesota graduate with special training in internal medicine. Protestant desired. Conversational command of Scandinavian helpful, but not essential. Married man preferred. Accepted applicant may begin at once. Address replies to No. 58 in care of Journal.

ASSISTANT WANTED: An excellent opportunity to assist a well-established general practitioner in a city of 1,000. Lutheran preferred. Should be able to talk German. No cash required. Opportunity to take over eventually entire practice as present physician is absent over protracted periods. Office and living quarters in same building if desired. Full details can be secured by writing No. 57, care of Journal.

LOCATION—Splendid opportunity for Wisconsin registered eye, ear, nose, and throat man. Position open immediately in Milwaukee. Address Dr. V. A. Chapman, 324 East Wisconsin Avenue, Milwaukee, Wisconsin.

LOCATION AVAILABLE in an incorporated village with a population of 700. Both grade and high schools, creamery, cheese factory, broom handle mill, and veneer mill. No financial considerations involved. Address communications to Mr. Arthur Besse, Butternut, Wisconsin.

WANTED—Assistantship, partnership, or good location by experienced German physician doing general practice. Will take locum tenens work for longer period. Licensed in Wisconsin and Iowa. Best references. Address replies to No. 62 in care of Journal.

WANTED — Location in small town. Catholic community preferred. Address replies to No. 66 in care of Journal.

WANTED — Man for locum tenens work, two months' period. Must be licensed in Wisconsin. Address replies to No. 67 in care of Journal.

WANTED—Colorimeter—Duboscq or some other make. Address replies to No. 64 in care of Journal.

FOR RENT — Three-room doctor's office, newly decorated, on first floor Grand Apartment Building, New London, Wisconsin. With or without equipment. Reasonable rent. Fine location. Additional rooms available. Private toilet, etc. A. A. Waitkus Realty Company, 1409 North Twenty-Seventh Street, Milwaukee, Wisconsin.

LOCUM TENENS—Experienced physician would like locum tenens work for period from June 15 to September 15. Will not compete. References. Address replies to No. 61 in care of Journal.

MEDICAL STENOGRAPHER with record room experience desires position in hospital, clinic, or doctor's office. Address replies No. 69 in care of Journal.

DIARRHEA

"the commonest ailment of infants in the summer months"

(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

One of the outstanding features of DEXTRI-MALTOSE is that it is almost unanimously preferred as the carbohydrate in the management of infantile diarrhea.

In diarrhea, "The sugar is added gradu... conditions admit, some sugar other than milk sugar or cane sugar being used, preferably dextrin and maltose."—*H. E. Small: Diarrhoea in bottle-fed infants, J. Maine M. A. 12:152-158, Jan. 1932.*

Regarding the treatment of diarrhea, "In our experience, the most satisfactory carbohydrate for routine use is Mead's dextrimaltose No. 1."—*F. R. Taylor: "Summer Complaints," Southern Med. & Surg., pp. 555-559, August, 1927.*

In cases of diarrhea, "For the first day or so no sugar should be added to the milk. If the bowel movements improve carbohydrates may be added. This should be the one that is most easily assimilated, so dextri-maltose is the carbohydrate of choice."—*W. H. McCaslan: Summer diarrheas in infants and young children, J. M. A. Alabama, 1:278-282, Jan., 1932.*

In diarrhea, "Carbohydrates, in the form of dextri-maltose, well cooked cereals or rice, usually can be handled without trouble."—*B. B. Jones: A discussion of some of the commoner types of infantile diarrhea, and the principles of the diets used in their treatment, Monthly, 55: 411-...*

"The most desirable sugar is dextri-maltose, because of all the sugars maltose is least apt to ferment."—*A. J. Blau: The use of protein milk ... 319-329, April 2, ...*

Concerning the treatment of diarrhea, "If the weight remains stationary, it is an indication that loss of substance is occurring through the stools, mostly in the form of alkaline salts. To equalize this loss of substance, the diet must be increased, but in such a way as to avoid causing fermentation. This may be done by adding dextri-maltose and preparations of protein to the food, increasing the calories until the infant is taking 160 calories per kilo. of body weight."—*H. L. Ratnoff: Nutritional disturbances, Arch. Pediat., 41:771 Nov., 1924.*

SERIOUSNESS OF DIARRHEA

There is a widespread opinion that, thanks to improved sanitation, infantile diarrhea is no longer of serious aspect. But Holt and McIntosh declare that diarrhea "is still a problem of the foremost importance, producing a number of deaths each year. . . ." Because dehydration is so often an insidious development even in mild cases, prompt and effective treatment is vital. Little states (Canad. Med. A. J. 13: 803, 1923), "There are cases on record where death has taken place within 24 hours of the time of onset of the first symptoms."

"... Professor Finkelstein and the use of butte... milk or lactic acid mixtures. The great advantage of being able to feed the infant with fermentative diarrhea a food containing 12 calories to the ounce like protein milk, after only one day on a starvation diet, is apparent. In addition, the further advantage of being able to safely add a carbohydrate like Dextri-Maltose No. 1 or No. 2 to the protein milk within a few days, enables one to gradually bring the infant up to its basal need in a short time. When protein milk was ... carbohydrate additions were advis... the result that many children on ... rate of collapse. The suggestion ... town of Toronto, Canada, that D... added to protein milk, was of grea... any practitioners still use protein m... ged periods without adding carbo... st be emphasized that regardless of ... of the stools, carbohydrate must be ... ein milk within a reasonable time ... void collapse."—*G. J. Feldstein: U... fants and children, Arch. Pe... 1933.*

"It should be remembered ... of lactose may cause diarrhoea. It a big... centage of sugar be required it is better to ... it by dextri-maltose, such as Mead's Nos. ... where the maltose is only slightly in exces... dextrins, thus diminishing the possibilit... cessive ferme... —*W. J. Pearson: ... practices in ... 6:38, 1930; ... April, June ...*

In cases of malnutrition and indigestion. "The appetite improves rapidly, and the stools soon become normal in appearance, if the sugars are intelligently prescribed. By this I refer to proper proportions of dextrin and maltose. Wh... there is a tendency to looseness, I have used t... dextri-maltose, for t... ration known as ... —*M. Ladd: Fus... hydrates; ... ...genized olive oil mixtur... July, 1916.*

"After the preliminary short period of starvation, protein milk should be used. . . . When the diarrhoea has been sufficiently checked, dextri-maltose may be added and gradually increased until from 4 to 6 tablespoons are being used."—*W. L. Denney: Acute nutritional disturbances of infancy, Univ. West. Ontario M. J. 2:132-137, April, 1932.*

Regarding the treatment of diarrhea, "Dextri-maltose preparations are preferred, for they do not ferment readily, are rapidly absorbed and leave very little for fermentation."—*V. A. Blenkle: Protein milks in infant feeding, Arch. Pediat., 42:745-760, Nov., 1925.*

". . . I begin to add carbohydrates slowly, by replacing ¼ ounce Casec every two days with ¼ ounce of Dextri-Maltose, preferably Dextri-Maltose Number one. As a rule, this is tolerated. When one ounce of Dextri-Maltose is used, the Casec, of course, should be discontinued."—*J. W. Reed: The etiology and ...*

"When sugar causes diarrhoea one can change the form of it. Mead's Dextrimaltose in small doses is more quickly absorbed and so superior to castor [cane] sugar. Lactose is expensive and seems not to be better than castor sugar."—*H. B. Gladstone: Infant Feeding and ...*

"Milk-sugar, which has been so extensively used in the past, should never be used where there is any digestive disturbance. It is not as easily digested as either cane-sugar (granulated sugar) or dextri-maltose. The latter is the best of all sugars to use, especially if there is any tendency to looseness of the bowels."—*A. Brown: The Normal Child: Its Care and Feeding, F. D. Goodchild Company, Toronto, 1923, p. 120.*

use a preparation with a high dextrin and relatively low maltose content, as Mead's dextri-maltose."

"If it is desired to feed an unusually large amount of sugar to a baby, it is well to use a maltose-dextrin preparation, as in this way there is less danger of bringing about sugar fermentation than if lactose were used."—*L. W. Hill: Practical Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 206.*

"The young baby ... ture, usually one-third ... ally skimmed at first, and a half ... We prefer Dextri-Maltose as the carbohydrate most easily digested. . . . Preparations containing the more maltose are more rapidly absorbed, but on the other hand, are more liable to produce diarrhea. . . . Lactose which was very popular at one time, is never used in our work. The consensus of opinion seems to be that milk sugar is often a source of indigestion in normal infants and the primary cause of fermentative dyspepsias in ... —*J. H. Reading, Jr.: Artificial ... infant during the first year ... April, 1923.*

"Protein milk may be continued for several weeks when a gradual transition to a whole milk or evaporated milk formula, which will supply about one and one-half to two ounces of whole milk to every pound of body weight, is reached. This also should finally have the addition of dextri-maltose amounting to five to seven per cent."—*R. A. Strong: Summer diarrheas in infancy and early childhood, Arch. Pediat. 47:344-354, June, 1930.*

... ated as the ... y the carbohydrate. It ally if given beyond 6 rhoea in many infants. avoided and if it is de- unt of carbohydrate, it is actose by dextri-maltose and 2). In our view cane- mixtures (Mead's Nos. sugar is less suitable than lactose, and if for any reason there is objection to the use of lactose, is obtained by the addition of carbohydrates, while fat and casein are reduced. For this purpose dextrimaltose and flour are better than the ordinary sugars, since they are more slowly absorbed and have greater efficacy in their powers of controlling the flora in the large intestine."—*W. J. Pearson ... H. G. Wyllie: Recent Advances in Diseases ... Blakiston's Son & Co., Phila., 1930.*

For cases of fermentative diarrhea, ". . . the ideal plan of treatment would be to give a food which is low in sugar (the food which that group of organisms thrive on) and high in protein. Calcium caseinate milk accomplishes this purpose. In our series of cases, we found it was necessary to use the casein calcium for from 5-8 days; we then stopped it and added dextri-maltose to the formula."—*A. G. DeSantis and L. V. Paider: The value of calcium caseinate milk in fermen... diarrhea, Arch. Pediat. ...*

Just as DEXTRI-MALTOSE is a *carbohydrate* modifier of choice, so is CASEC (calcium caseinate) an accepted *protein* modifier. Casec is of special value for (1) colic and loose green stools in breast-fed infants, (2) fermentative diarrhea in bottle-fed infants, (3) prematures, (4) marasmus, (5) celiac disease. *MEAD JOHNSON & CO., EVANSVILLE, IND., U.S.A.*

When requesting samples of Dextri-Maltose, please enclose professional card to cooperate in preventing their reaching unauthorized persons.

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

MADISON HEADQUARTERS

State Medical Society of Wisconsin
Annual Meeting, Sept. 8, 9, 10, 11, 1936.

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

NORMANDALE

for

Neuropsychiatric Cases

An institution for the treatment of functional and organic disturbances of the central nervous system, including psychoses.
For further information address:
Dr. I. B. Shulak, Supt.
NORMANDALE
Madison, Wisconsin

WHEN IN MADISON

Visit Your State Offices

Room 305, Washington Building

one block from the Capitol

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S

770 North Water St. **Phone Daly 1461**
MILWAUKEE, WIS.

Kenilworth Sanitarium

KENILWORTH, ILLINOIS
(Northern Suburb of Chicago)
Founded by Sanger Brown, M. D., 1905

Built and equipped for treatment of mental and nervous diseases. Over ten acres of well parked and landscaped grounds. Supervised occupational and recreational activities.

JAMES M. ROBBINS, M.D., Medical Director
E. J. KELLEHER, M.D.
CHRISTY BROWN, Business Manager
PETER BASSOE, M.D., Consulting Physician

All correspondence should be addressed to Kenilworth Sanitarium, Kenilworth, Ill.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

Send for application for membership in these purely professional Associations

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Since 1912

UNITED STATES USSP STANDARD PRODUCTS

POLLEN EXTRACTS

For Prophylaxis and Treatment of

FALL HAY FEVER

U.S.S.P. CO. Experience has taught that pre-seasonal desensitization (begun four to ten weeks in advance of the expected attack) is much more successful than an effort to relieve Hay Fever by intensive treatment with Pollen Allergen Solutions after the onset of symptoms. In recent years it has become apparent that perennial desensitization by suitable treatment spread over the entire year is an excellent method of controlling Hay Fever.

Complete treatment set includes equal parts of Ragweed-Giant and Ragweed-Common. Three-vial package with vial of Epinephrin Hydrochloride Solution 1-1000.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

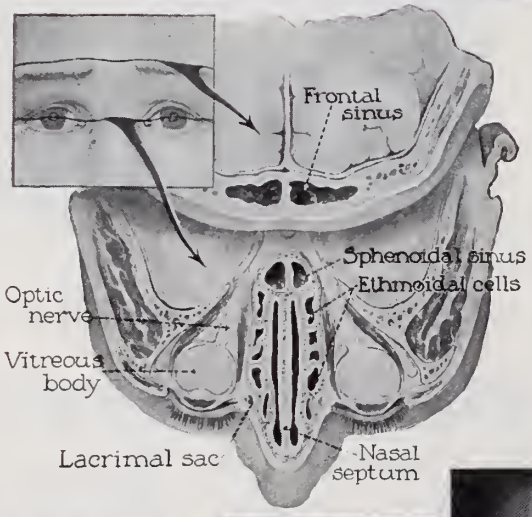
Write for information.

U. S. Standard Products Company
U. S. Government License No. 65
Woodworth, Wisconsin

NEO-SYNEPHRIN
Hydrochloride
(levo-meta-methylaminoethanolphenol hydrochloride)

EMULSION

SPREADS QUICKLY and EVENLY



● The low surface tension of Neo-Synephrin Hydrochloride Emulsion causes it to diffuse rapidly over the nasal mucosa, effectively relieving the nasal congestion of colds, rhinitis and sinusitis.

JELLY
½% (in Collapsible Tubes with nasal applicator)

SOLUTION
¼% and 1% (1-oz. bottles)

EMULSION
¼% (1-oz. bottles)

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

NEO-SYNEPHRIN HYDROCHLORIDE IS AVAILABLE IN 3 FORMS

FREDERICK STEARNS & COMPANY
DETROIT NEW YORK KANSAS CITY SAN FRANCISCO
WINDSOR, CANADA SYDNEY, AUSTRALIA

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements

The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course

The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission

A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction

The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities

Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

STEPHEN E. GAVIN, Fond du Lac, President
JAMES C. SARGENT, Milwaukee, President-Elect
A. E. RECTOR, Appleton, Speaker
HENRY J. GRAMLING, Milwaukee, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
A. W. Rogers-----Oconomowoc

Second District:
Frank W. Pope--------Racine

TERM EXPIRES 1937

Third District:
Joseph Dean ---------Madison

Fourth District:
W. Cunningham ----Platteville

TERM EXPIRES 1937

Fifth District:
A. H. Heidner------West Bend

Sixth District:
S. E. Gavin------Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi----------Galesville

Eighth District:
G. R. Duer----------Marinette

Ninth District:
Joseph F. Smith------Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler-------Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson------Iron River

Twelfth District:
Joseph Lettenberger-Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert---------Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Kiilins, Green Bay.
Caiumet	A. J. Wagner, Briiiion	R. J. Winkler, Hiibert.
Chippewa	Roliin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falis.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Deils.
Crawford	H. C. Lund, Gays Milis	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purceil, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reesevilie	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire-Dunn-Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randail, Biue River	M. B. Glasier, Bioomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Beriin.
Iowa	S. R. Ridiey, Mineral Point	H. M. Waiker, Dodgeville.
Jefferson	H. O. Casweil, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	C. G. Richards, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, New Glarus	E. D. McConneil, Dariington.
Langiade	Paul Dailey, Elcho	W. P. Curran, Antigo.
Lincoin	R. G. Baker, Tomahawk	L. J. Bayer, Merrili.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	H. H. Christensen, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Wiiiiams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Faiis.
Oneida-Vilas	C. A. Richards, Rhineiander	Lloyd F. Kaiser, Rhineiander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Anderson, Pium City	A. E. McMahon, Glenwood City.
Poik	W. C. Andrews, Frederic	Earl C. Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richiand	C. F. Bowen, Richiand Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Giibertsen, Janesviiie.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whaien, Bruce.
Sauk	F. R. Winsiow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantweii, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempeaieau-Jackson-Buffalo	Donaid Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hiiisboro.
Walworth	W. W. Coon, Waiworth	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Aiienton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Ciintonviiie	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Wiiiiams, Oshkosh.
Wood	J. B. Vedder, Marshfieid	W. G. Sexton, Marshfieid.

Copyright 1937, Liggett & Myers Tobacco Co.

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Reeducational Methods Applied.

Building Fireproof

Isolated, Fireproof Psychopathic Department for Acute Mental Cases

Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin
JAMES C. HASSALL, M.D.
PETER BASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office: 1330 Wells Building
Tuesday Mornings by Appointment Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1-3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
Rock Sleyster, M.D., Medical Director.
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".

CEMCRAT PRINTING COMPANY
MADISON, WISCONSIN

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

The Wisconsin Medical Journal

IN THIS ISSUE

LEGISLATIVE HEARING ON COMPULSORY SICKNESS INSURANCE
TREATMENT OF FRACTURES
By J. O. Dieterle, M. D.
CANCER OF RECTUM
By J. A. Johnson, M. D.
FUNCTIONAL—ORGANIC DISORDERS
By Marie L. Carns, M. D.
Annette C. Washburne, M. D.
SYMPOSIUM ON CARE OF INSANE

COLLEGE OF PHYSICIANS
LIBRARY
SEP 15 1937
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 416

XXXVI, Number 6
Washington Avenue

MADISON, WISCONSIN, JUNE, 1937
Copyright, 1937, by The State Medical Society of Wisconsin
Per Year $3.50
Single Copy 50 Cents

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

Medical Directors:
T. H. HAY, M. D. 1906-1916
J. W. COON, M. D. 1916-1934
H. M. COON, M. D. 1934-

- A PRIVATE SANATORIUM
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES.
- CAREFULLY SUPERVISED REST.
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Additional Information, Apply To:
Medical Director, Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

"I'm Sorry THE DOCTOR ISN'T HERE TODAY — HE HAD TO GO TO COURT"

★ *Driving daily regardless of weather conditions or traffic—answering calls in storms and blizzards—the Doctor is subjected to accident-possibilities in excess of the normal. It is a tribute to his skill and caution that accident ratios among the Medical Profession are very low.*

WHEN the businessman goes to court to testify in the accident in which he was involved, his financial loss is measured only by the bills he may pay. But when the Doctor goes to Court, he suffers a double loss — the income that is gone because he was not available for services to his patients, and the bills that come in.

At a time like this EMPLOYERS MUTUALS can save substantial sums for policyholders. Every detail that can be taken from the Insured's shoulders is assumed by the skilled staff of the Insurance Company, in order to reduce the time and annoyance he must undergo. Doctors find EMPLOYERS MUTUALS an outstandingly considerate Insurance Company for their own Insurance—not only Automobile but Public Liability and Fire Insurance as well. Ask any EMPLOYERS MUTUALS representative to tell you of the services we can offer you.

EMPLOYERS MUTUALS

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.
EMPLOYERS MUTUAL INDEMNITY CORPORATION
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY
Home Office: Wausau, Wisconsin

Appleton
Eau Claire
La Crosse

Madison
Milwaukee
Superior

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 6

MADISON, WISCONSIN, JUNE, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

The Treatment of Fractures by the Use of Wire Fixation by J. O. Dieterle, M.D., Milwaukee 427
Treatment of Cancer of the Rectum by Electrocoagulation by James A. Johnson, M.D., Minneapolis, Minnesota 430
Functional and Organic Disorders; Relative Incidence by Marie L. Carnes, M.D., and Annette C. Washburne, M.D., Madison 435
The County Asylum; A Hospital in Fact by H. H. Christofferson, M.D., Colby 438
Needs for Closer Cooperation Between State and County Institutions by M. K. Green, M.D., Mendota 439
State Board of Control Medical Program by John J. Hannan, president, State Board of Control, Madison 442
Atypical Tuberculosis; Report of Cases by R. H. Stiehm, M.D., Janet McCarter, Ph.D., and H. R. Getz, M.D., Madison 451
Molluscum Contagiosum; Report on a Series of Seven Cases by Llewellyn R. Cole, M.D., director, department of student health, University of Wisconsin, Madison 454
Wisconsin Venereal Disease Program by H. M. Guilford, M.D., Director, Communicable Disease Division, State Board of Control, Madison 457

EDITORIALS

Sulfanilamide 462
"Oscillate to Extremes" 463

MISCELLANY

The President's Page 464
Society Proceedings 465
The Woman's Auxiliary 467
News Items and Personals 468
Births, Deaths 470
Society Records 471
Assembly Committee on Public Welfare Recommends Killing for Compulsory Sickness Insurance 471
Interim Committee Bill Testimony 488
Books Received for Review 494
Book Reviews 494

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]
"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physiomechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M.D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D.
L. Tennyson Peyton, M.D.

When writing advertisers' please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **B. P. Grimes, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

Every detail of your single vision or bifocal prescription carefully interpreted.

Highest quality—Accuracy—Correct Styling

N. P. Benson Optical Co., Inc.

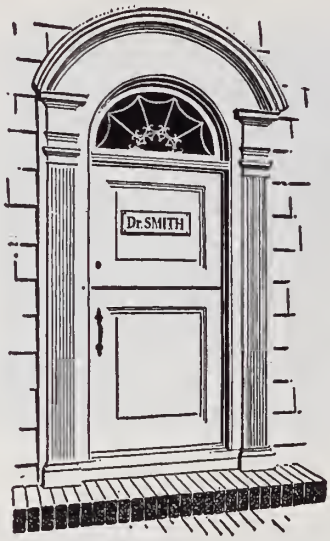
"Established 1913"

MAIN OFFICE: MINNEAPOLIS, MINN.

—Branches—

ABERDEEN
BISMARCK
DULUTH
EAU CLAIRE
LA CROSSE
WAUSAU
RAPID CITY
STEVENS POINT
ALBERT LEA

INFANT FEEDING PRACTICE



should be in the private doctor's office

IMPROVED economic conditions are returning babies to private practice. Encourage it.

The doctor knows his practice, the mother her economies. When the infant feeding materials prescribed are within the reach of every budget, mothers will appreciate the physician and babies will thrive.

Karo is a most economical milk-modifier. It consists of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor) and is suitable for every formula.

A tablespoon of Karo gives twice the number of calories (60) in comparison with a tablespoon of any powdered maltose-dextrins-dextrose, including Karo powdered. Karo is well tolerated, highly digestible, not readily fermentable and effectively utilized by infants.

For further information, write

CORN PRODUCTS SALES COMPANY
Dept. SJ-6, 17 Battery Place, New York, N. Y.

★**Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.**

"Success" Formula!

FOR BUILDING AND PROTECTING HEALTHY BODIES, GOOD BONE, SOUND, EVEN TEETH

Send for
FREE BOOK

Special studies on infant feeding with Irradiated Evaporated Milk, sponsored by the Irradiated Evaporated Milk Institute, are being carried out constantly at leading scientific centers. Reprints of findings, plus authoritative booklet on infant feeding, will be sent to you without charge on receipt of the coupon below.

IRRADIATED EVAPORATED MILK

Your success with infant feeding formulas constructed with Irradiated Evaporated Milk can be predicated on the following established facts:

It is cow's milk in its safest form because it is sterilized, and in its most digestible form because it is homogenized and heated, causing the formation of softer curds.

It is doubly rich in the bone and tooth building calcium and phosphorus, as well as containing all of the milk nutrients and vitamins which milk is depended upon to supply. As such it is most suitable as a carrier for Vitamin "D"

It supplies the extra amount of Vitamin "D" so essential in nutrition and health, both in infants and in older children, who receive no Vitamin "D" from special sources. For Vitamin "D" in adequate amounts is indispensable if the calcium and phosphorus are to do their proper work of building strong bones and sound, even teeth.

This extra enrichment with Vitamin "D," produced by exposing it to ultra-violet rays under the famous Steenbock Irradiation Process, is your assurance of uniform Vitamin "D" potency. Frequent tests of open-market samples assayed in the laboratories of the Foundation, plus scrupulous and scientific control by the manufacturer, assure this. Today, many of the best known brands of Evaporated Milk are Irradiated, and are available at no increase in price in every community. Look for the word "Irradiated" on the labels.

WISCONSIN ALUMNI RESEARCH FOUNDATION* MADISON, WISCONSIN

*A corporation not for private profit . . . founded in 1925 . . . to accept and administer voluntarily, assigned patents and patentable scientific discoveries developed at the University of Wisconsin. By continuous biological assays, the public and professional confidence in accurately standardized Vitamin D is maintained. All net avails above operating costs are dedicated to scientific research.

Wisconsin Alumni Research Foundation, Madison, Wisconsin
Please send reprints of research findings and booklet on "Infant Feeding with Irradiated Evaporated Milk."

Name.....
Address.....
City.....State..... WMJ 637

Copyright 1937, Liggett & Myers Tobacco Co.

UNTIL another Ehrlich appears on the scene, the arsenicals probably are destined to remain the foundation of antisyphilitic therapy.

Based on extensive investigations of the United States Public Health Service and the Cooperative Clinical Group, a standard and uniform type of treatment procedure in early syphilis is available.

The average physician in office practice prefers Neoarsphenamine. The Merck brand of Neoarsphenamine is nationally recognized for its high spirocheticidal property, low toxicity, and instant solubility. Its use will go far in cooperating with the nationwide crusade to eradicate syphilis.

Information on the standard treatment, and schemes of treatment for the application of Arsphenamine or of Neoarsphenamine in conjunction with a heavy metal, are available on request.

MERCK & CO. INC. *Manufacturing Chemists* **RAHWAY, N. J.**

Please send information on the standard treatment of early syphilis, and a suggested schedule of treatment.

Name .....

Street .....

City ..... *State* .....

WHEN DEALING WITH CANCER

Consider the Utility, Accessibility and

LOW COST OF RADIUM THERAPY

LEASING PLAN: Equivalent to radium ownership without CAPITAL investment. You keep possession continuously. We pay insurance and upkeep. Fifty milligrams for $22.50 per month; 100 milligrams $40. Larger amounts in proportion. The initial lease is for a period of one year. New radium. Modern platinum containers.

RENTAL PLAN: Any quantity available by special delivery express. Platinum tubes and needles, and plaques, in all dosage range. The basic rate is $10 for 50 milligrams for 36 hours' actual time of application.

PURCHASE PLAN: Radium in all forms available for purchase in any quantity at the lowest price in the history of the radium industry.

RADON: Radon in ALL-GOLD implants at $2.50 per millicurie.

THE COMPLETE SERVICE FOR RADIUM USERS

Telephone RANdolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building **25 E. Washington St.**

CHICAGO, ILLINOIS

Examine

HAMILTON

before you buy

New Furniture

No. 9477 Table (above) $126.00

The No. 9477 Hamilton Nu-Classic Examining Table is modern in every sense of the word—modern in style and modern in its efficient arrangement.

SEE THEM AT OUR STORE

HAMILTON TABLES NOW ON DISPLAY

No. 9460
$165.00
The finest examining table made, conservative, spacious and efficient.

No. 9448
$97.50
A lower priced Hometone Table.

No. 9471
$145.00
The finest table in our modern Nu-Classic Line.

No. 9466-S
$94.00
Our lower priced Nu-Classic Table.

ROEMER DRUG CO.

606 N. Broadway, Milwaukee, Wis.

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)

Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES.

MEDICINE—Informal Course first of every week; Intensive Personal Courses during August.

SURGERY—General Course One, Two, Three and Six Months; Two Weeks Intensive Course Surgical Technique (Operative Surgery with Practice); Clinical Course. Courses available every week.

GYNECOLOGY—Four Weeks Intensive Personal Course starting August 2. Two Weeks Course starting September 20 and October 18.

FRACTURES & TRAUMATIC SURGERY—Informal Practical Course; Ten Day Intensive Course starting July 12.

OTOLARYNGOLOGY — Two Weeks Intensive Course starting October 4.

OPHTHALMOLOGY—Two Weeks Intensive Course starting October 18.

UROLOGY — General Course Two Months; Intensive Course Two Weeks Special Courses.

CYSTOSCOPY—Intensive Course every two weeks (attendance limited).

General, Intensive and Special Courses in all branches of Medicine and Surgery starting every week.

Teaching Faculty—Attending Staff of Cook County Hospital

Address: Registrar, 427 South Honore Street, Chicago, Illinois.

DIAGNOSE YOUR Hay Fever CASES

BY THIS SIMPLE METHOD

$1 COMPLETE

WITH the use of these diagnostic pollen outfits—made up for individual cases and areas—diagnosis of hay fever cases is both simplified and accurate. Just fill out the coupon and mail it to us with one dollar. We shall send you by return mail a special set with complete instructions for use and a chart for recording reactions. You may forward the result of your tests and receive suggestions for the management and desensitization of your patients. (Correspondence is invited on allergic problems.)

POLLEN EXTRACTS (ARLCO) are available in standardized sets for desensitization and need no dilution. Special pollen mixtures are made up without extra charge. Prices on concentrated pollen extracts (Arlco) are furnished on request.

DIAGNOSTIC PROTEIN EXTRACTS (ARLCO) are offered in special sets for testing asthma, infantile eczema, and other allergic conditions. 80-protein set, $25.00. 112-protein set, $35.00. (Slightly higher in Canada.) Write for our new 36-page monograph, *The Principles of Allergy*.

THE
Arlington
CHEMICAL COMPANY
Yonkers, N. Y.

FILL IN THIS COUPON

THE ARLINGTON CHEMICAL CO. (Biological Department), YONKERS, N. Y.

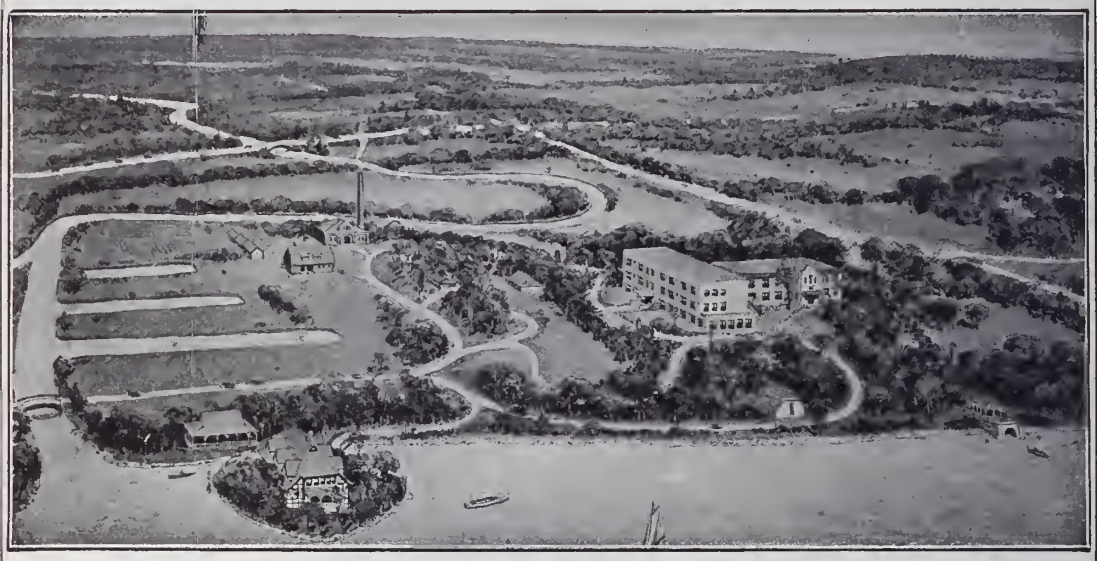
Enclosed find $1.00 for a complete diagnostic pollen outfit for testing hay fever case.

Patient's date of onset of attack is_____Date of termination of patient's attack is_____Mail set to_____M. D.

Address_____City_____State_____

WIS.-6

THE SUMMIT HOSPITAL



Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Homelike Environment

Excellent Cuisine

Moderate Rates

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

DOCTOR

YOU ARE INVITED

To Visit These Attractive

NEW HEADQUARTERS

New Home of Milwaukee Optical Mfg. Co. 4th Floor Bankers Building N. E. Corner East Wisconsin and N. Water

Ideally Located For You, Doctor, To Conveniently And Readily Contact These New Offices And Plant

You have at your command the services and facilities of this large, complete and soundly established supply house.

THE MILWAUKEE OPTICAL MFG. CO.

208 EAST WISCONSIN AVENUE

MILWAUKEE, WISCONSIN

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$32.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department

Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 6 Copyright, 1937, by The State Medical Society of Wisconsin JUNE, 1937

The Treatment of Fractures by the Use of Wire Fixation*

By J. O. DIETERLE, M. D.
Milwaukee

THE use of wire for skeletal traction in the treatment of fractures was effectively demonstrated by Kirschner in 1927. Since that time favorable reports from various parts of the world have indicated that the application of this method of treatment is becoming increasingly popular in the hands of surgeons who have become skilled in its use. Originally designed for traction purposes, the application of wire has been extended to the internal fixation of certain joint fractures with which this paper will largely deal.

The use of wire in the treatment of fractures has been an advantage in that trauma to tissues has been reduced to a minimum as compared with the use of other materials. It cannot be too strongly emphasized, however, that the indiscriminate use of wire in the treatment of fractures should be condemned. When skin traction is equally effective the use of other methods is not indicated. In any fracture where the chance of getting a satisfactory reduction by simple manipulation and adequate splintage is assured, the use of wire is not indicated. It may be needless to state that the introduction of wire through areas of skin damaged by abrasions or blebs in which the danger of infection is present, should be avoided. When properly indicated for skeletal traction or fixation, the use of wire will not only increase the chances of obtaining a better functional result but will in many instances considerably lessen the burden of treatment.

The Use of Wire in the Fixation of Intracapsular Fractures of the Hip Joint

Since the introduction of the flanged nail by Smith–Peterson in the treatment of intracapsular fractures of the hip joint, renewed interest has been stimulated in the fixation of these and other joint fractures by the use of steel pins or wires. For the past few years Knowles reported good results in hip joint fractures by his method of drilling flexible steel pins through the trochanter into the femoral head. In 1924 Telson reported a series of cases in which he obtained satisfactory results by using drill-pointed wires. We have used Telson wire in five recent cases with satisfaction. The technique is as follows: Reduction is done under anesthesia by manipulation and verified by x-rays in two positions. If satisfactory, one wire is introduced into the trochanter with a carpenter's drill. We have considered it a great advantage to make an incision over the great trochanter exposing the femur in cases where bony landmarks are not prominent. X-ray films are then taken in two positions, and if the first wire is seen to have traversed the neck it is a simple procedure to introduce two more, one parallel to the first and the third at an angle to the first two (fig. 1). No external fixation is necessary. In two cases treated by this method the fractures united in good position and weight bearing was allowed five months after fixation. A third case, one of fracture near the base of the neck, united with some degree of coxa vara. Wire or pins should be removed after the union has been tested out by weight bearing. Too much emphasis cannot be placed on getting accurate apposition of the fractured surfaces of the neck. The lateral x-ray film will tell the story. Many of the nonunions attributed to interposition of soft parts are, in reality, due to failure of reduction.

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

Fracture-Dislocations of the Ankle Joint

Kirschner wire may be utilized to advantage in certain fracture-dislocations of the ankle joint. Lounsbury and Metz[1] have shown

Fig. 1

that in some of the marginal fractures of the lower end of the tibia it is impossible to prevent forward or backward dislocation of the foot by the application of a plaster

Fig. 2

cast. In these cases the fracture line is at or very near to the apex of the concavity of the tibial articulation (fig. 2). Reduction is accomplished with ease, but displacement will recur within the cast because of the wedge-like action of the upper surface of the astragalus. In these difficult cases Lounsbury advocated open reduction and fixation by the use of autogenous bone pegs. An easier and equally effective method of maintaining reduction in these cases may be

Fig. 3

achieved in the following manner: While an assistant holds the foot in its proper relationship to the tibia, two or more wires are drilled through the bottom of the heel and the ankle joint into the lower end of the tibia (fig. 3). Dislocation will then be impossible and the fixation is completed by the application of a cast. The wires are extracted when union is evident in the x-ray. Weight bearing is then allowed in a walking cast.[2]

Oblique, Comminute, or Compound Fracture of the Forearm and Leg

The introduction of the distraction apparatus by Block in 1923,[3] utilizing wire for the fixation of fragments, has considerably simplified the treatment of these fractures. In compound fractures the arrangement of the

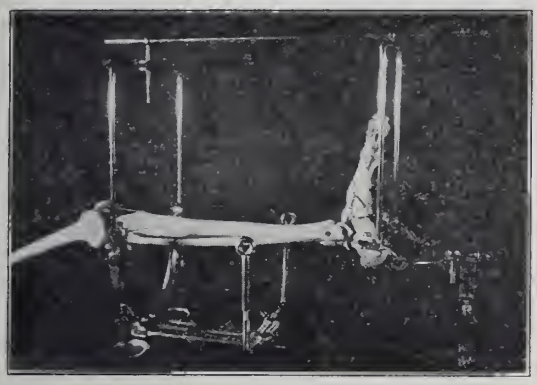


Fig. 4

fixation will allow access to the wound without disturbing the position of the fragments. The technique is as follows:

Two Kirschner wires are introduced through the bone, one above and the other below the site of fracture. The extremity is suspended by fixing the wires on the distraction appliance (fig. 4). Necessary adjustments are made to reduce the fracture, to maintain length and to correct rotation or angulation. A plaster splint is applied to maintain this position until repair has taken place. In many cases so treated the patient may be ambulatory at an early date (figs. 5 and 6).

Fig. 5

Fractures of the Calcaneum

A similar method is used in reduction of fractures of the os calcis. One wire is drilled through the posterior process of the os calcis and a second through the shaft of the tibia about four inches above the ankle. With the knee flexed to a right angle, the

Fig. 6

leg is suspended on the distraction apparatus designed by Boehler (fig. 7). After the widening of the heel has been reduced by compression, the posterior process of the calcaneum is pulled downward and backward. An x-ray picture is taken to verify the reduction. If satisfactory, a cast is applied maintaining the position until union is firm.[4]

Fractures of Condyles at the Elbow and Knee

There are certain joint fractures such as the T fractures at the elbow and the oblique fractures of the condyles of the tibia that

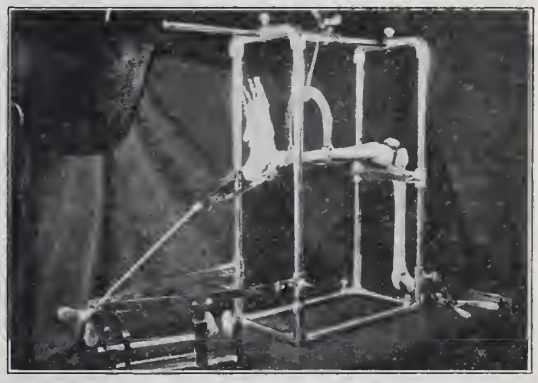


Fig. 7

require internal fixation. Incision must be made to get accurate reduction. An effective way to hold a piece of bone in apposition with the shaft, for example, a fractured con-

dyle of the humerus, is to drill three wires into the bone so as to cross within. The surgical wound is closed around the projecting wires which are clipped off short and held in position with a plaster cast. They are extracted when repair is assured.

In conclusion, it may be stated that the use of wire as shown is a great advantage in the treatment of fractures in properly selected cases. The inclusion of a hand or motor wire drill and a few wires in a set of instruments may prove in many instances the easiest way out of a difficulty.

REFERENCES

1. Lounsbury, B. F., and Metz, A. R.: Lipping Fracture of Lower Articular End of Tibia. Arch. Surg., 5:678–690 (Nov.) 1922.
2. Dieterle, J. O.: The Use of Kirschner Wire in Maintaining Reduction of Fracture-Dislocations of the Ankle Joint. J. Bone & Joint Surg., 17:990–995 (Oct.) 1935.
3. Klapp and Block: Knochenbruchbehandlung mit Drahtzugen, Berlin: Urban and Schwarzenberg, 1930.
4. Boehler, Lorenz: The Treatment of Fractures. Trans. by E. W. Hey Groves, Baltimore: William Wood and Co., 1930.

Treatment of Cancer of the Rectum by Electrocoagulation*

By JAMES A. JOHNSON, M. D.

Minneapolis, Minnesota

DURING the past decade a great deal has been done to improve the mortality and bring about better results in the treatment of carcinoma of the rectum. However, there is still much to be desired. Operative procedures for its removal have been well standardized, but at its best it is still a hazardous undertaking. The mortality is high, and to most people a colostomy is a disagreeable burden. This is particularly true in the aged, who are often unable to care for themselves under such circumstances.

As in other parts of the body, the great majority of these cases occur during the cancer age and most frequently during the fifth and sixth decades. Many, however, are affected later in life during a period when they are feeble, and a large percentage have associated lesions which render them unsuitable for radical operation. It is this class of cases to which I shall devote my major attention.

Carcinoma of the rectum in any case is a serious condition and carries with it grave consequences. The operative mortality is high in individuals in good health. When it occurs in the aged, or in persons who have other serious lesions, we must of necessity consider the added risk. One can truthfully say that a carcinoma in this locality in an aged individual is not only a sad condition but a very formidable lesion. It is often made all the more serious in many cases because of the presence of other lesions, such as coronary disease, myocardial degeneration and marked anemia with weight loss, which render the patient absolutely unfit for any major operation. Often these old people are cared for by their relatives and do not, with a colostomy, become a welcome member of the household. To take the risk of a radical operation, together with subjecting them to a permanent colostomy, is certainly not very desirable.

It was when I was confronted with such a case on September 12, 1927, that I first employed electrocoagulation with destruction of the growth *in situ*. A woman, 85 years of age, complained that she had been passing blood and mucus in her stools for six months. On protoscopic examination a large ulcerating, infiltrating carcinoma was found about 8 cm. above the anal sphincter, involving about one half the circumference of the bowel. General examination revealed a marked vascular sclerosis, blood pressure 220 systolic, 120 diastolic, frequent extrasystoles and a loud systolic murmur at the apex. She was obviously a bad risk for radical operation. Her mental capacity was excellent. I decided to employ electrocoagu-

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

lation. The result was so satisfactory that I have continued to use it in similar cases.

Let it be clearly understood that I do not intend to have this procedure replace the classical radical operations in cases which are considered good or fair surgical risks. It is advocated here only for cases of carcinoma of the rectum which would otherwise be considered inoperable or serious operative risks because of age or other lesions that would make radical operation inadvisable. In these cases electrocoagulation offers the best solution. The mortality is very low and the results compare favorably with radical removal.

The etiology of carcinoma of the colon is no more clearly understood than is that of carcinoma in other parts of the body. About 4 per cent of all carcinomas of the body occur in the rectum and rectosigmoid, and 80 per cent of all carcinomas of the colon are located in this area. Since such a large percentage of carcinomas of the colon occur in the rectum and lower sigmoid, it is quite probable that constant irritation is a factor in its development. This is also a frequent location of adenomas, polyps and diverticulitis, and it is now recognized that many of these undergo malignant changes.

With the exception of epithelioma (squamous cell carcinoma), which occurs only when the growth arises from the perianal skin, all carcinomata of the rectum are adenocarcinomata and vary in their appearance only because of their cellular structure and method of growth. Clinically there are four types of carcinomas in this locality:

1. The raised polypoid growths which grow into the lumen of the bowel and often give rise to early symptoms—especially the passing of mucus and blood. As a rule these are among the less malignant, and, because of their symptoms, patients often seek early relief.

2. The ulcerating crater-like growths with a nodular margin. These penetrate deep into the surrounding structures, often are late in producing symptoms and relatively early in invading the lymphatics.

3. The annular constricting growths which contain a large amount of fibrous tissue and cause early constriction of the bowel. Occasionally acute intestinal obstruction is the first serious symptom.

4. The soft gelatinous or colloid growths, either single or multiple. These as a class are rare but usually rapidly growing and highly malignant.

It is a recognized fact that cancer in various parts of the body varies as to its degree of malignancy and method of metastasis. Thus, cancer of glandular structures, such as the breast, thyroid, and prostate, often has a predilection for the bony tissues. These distant metastases are often early. Cancer of the rectum, however, metastasizes first directly into the adjacent lymphatics and then relays to other structures, particularly the liver. It is also a clinical fact that cancer of the rectum, compared to cancer in many other parts of the body, metastasizes late and often remains a local growth for a long time. This in itself renders it a relatively favorable condition.

The symptoms vary with the type and location of the growth. When located in the right half of the colon, constipation, anemia and weight loss are usually the predominating symptoms, while those in the rectum and sigmoid often produce frequent stools containing mucus and blood.

The diagnosis as a rule is not difficult. Any patient who has previously been regular, then becomes constipated, has diarrhea, loss of weight or passes mucus or blood in his stool, should at once be carefully examined by proctoscopy and x-ray for the possibility of existing carcinoma. Bleeding from the rectum is always a danger sign. Too often treatment is given without a careful examination preceding it.

In the treatment of cancer I am certain that it is the ideal of every surgeon to not only remove the growth itself but also the adjacent lymphatic structures into which it metastasizes. Such an operation cannot be accomplished by electrocoagulation. In this method of treatment I have, therefore, confined its application to what I consider the inoperable and serious risk cases, such as:

1. When it occurs in extreme old age, and after a careful general examination it is determined that life expectancy is relatively short.

2. When other lesions are present which render the patient so serious a risk that radical operation is not advisable.

3. When the growth has progressed so far that it is inoperable because it has invaded adjacent important structures or there is evidence of distant metastases. In such cases of course it is only a palliative measure.

4. When very occasionally a patient will absolutely refuse a permanent colostomy. The patient says that he has known such cases and would rather die than submit to it. In such instances electrocoagulation is an alternative, particularly if the growth is located in the extraperitoneal portion of the rectum, where it can be completely destroyed.

Technique

The cauterization is done with the coagulating current from a diathermy machine. The machine must be powerful enough to

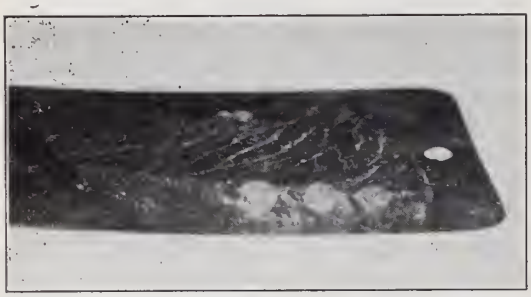


Fig. 1. The cautery is tested on a piece of raw steak to gauge its penetration.

deliver an adequate current in order to thoroughly coagulate the growth. Before beginning the operation the cautery is always tested on a piece of raw steak. This is important in order to properly gauge its penetration. The operator should be thoroughly familiar with proctoscopy and have the proper instruments at hand. I use a large operating proctoscope or occasionally a bivalve vaginal speculum for lesions in the rectum. When the growth is located high, in the intraperitoneal portion of the bowel, it is necessary to use a scope of smaller caliber, and the visualization is not as good as with the larger instrument.

Fig. 2. The sphincter muscles are injected with local anesthetic to secure relaxation.

The patient is placed on the operating table on his abdomen with the head lowered.

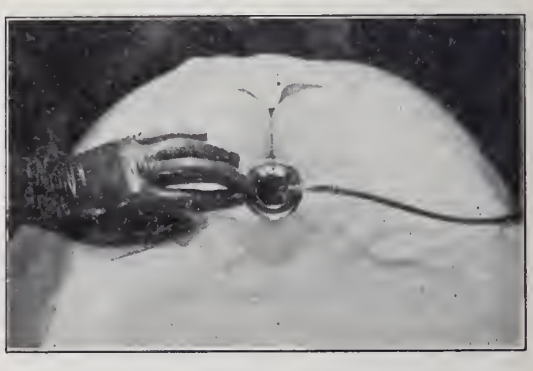


Fig. 3. The operating proctoscope has been inserted for a careful examination before the operation.

Gas, spinal or local anesthesia may be used, as best indicated. When gas is used, it is always supplemented by local infiltrations about the sphincter. When local anesthesia

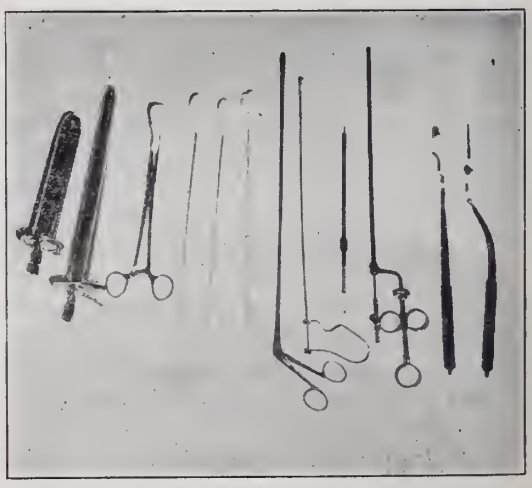


Fig. 4. Proctoscopes, biopsy forceps, and coagulating applicators.

is used, hyoscine and morphine are given as a sedative. The proctoscope is introduced and a careful examination is made in order to get a comprehensive estimate of the location and extent of the lesion. A specimen is next taken for microscopic examination. The growth is then systematically destroyed by electrocoagulation *in situ*. I have used only the coagulating current because its penetration is dependable. It not only destroys the growth but at the same time, by its intense heat, seals the lymphatics and blood vessels. This undoubtedly has a great deal to do with preventing postoperative bleeding and extension of the growth.

The technique is often difficult and exacting. Great care must be exercised not to penetrate too deeply and injure surrounding important structures. In the lower rectum, the bladder, vagina, and prostate must be avoided. If the lesion is located above the rectal shelf, in the intraperitoneal portion of

TABLE 1. RESULTS OF OPERATED CASES

Case	*Age*	*Location and extent of lesions*	*General condition*	*Number of operations*	*Result*
Mr. C.	68	Large polypoid adenocarcinoma, grade IV, at rectosigmoid. Complete obstruction.	Almost completely deaf. Very frail from bleeding. Weight loss and 10 day bowel obstruction.	2	Died 1 year 11 months after first operation from local recurrence.
Mrs. V.	72	Large infiltrating adenocarcinoma, grade IV, at rectosigmoid. Complete obstruction.	Very frail from bleeding and weight loss. Complete obstruction for 7 days.	2	Died 1 year after first operation from local recurrence with perforation and peritonitis.
Mrs. E.	78	Soft gelatinous carcinoma, grade IV, extending from rectal sphincter into lower sigmoid.	Almost completely deaf. Very frail from loss of blood and recent bronchopneumonia.	3	Died 1 year 6 months after first operation from local recurrence and general metastases.
Mr. O.	78	Large infiltrating obstructing adenocarcinoma, grade III, at rectosigmoid involving entire circumference.	Very frail from 3 years bleeding. Severe asthma.	2	Died 5 months after first operation from general debility. Only palliative.
Mrs. J.	73	Soft polypoid adenocarcinoma, grade III, at rectosigmoid extending upward.	Extremely weak from extensive bleeding. Weight loss 28 lbs. Repeated severe attacks of angina pectoris.	3	Living 2 years 6 months after first operation but has extensive local recurrence. Recent colostomy.
Mrs. D.	81	Polypoid adenocarcinoma, grade IV, in lower sigmoid.	Very frail from bleeding and weight loss. Weight 78 lbs.	3	No recurrence. Living and well 2 years 9 mos. after first operation. Age 84.
Mr. R.	64	Polypoid adenocarcinoma, grade II, 5 cm. above rectal sphincter.	General condition fair. B. P. 195/95. Refused radical operation.	2	No recurrence. Living and well 1 year 3 months after first operation.
Mrs. S.	62	Raised polypoid adenocarcinoma on second valve.	Semi-invalid from old pulmonary tuberculosis and a broken hip.	1	No recurrence 4 years 6 months after operation. Living and well—67 years of age.
Miss G.	79	Large ulcerating infiltrating adenocarcinoma on first valve extending down to sphincter.	Marked arteriosclerosis. Partly crippled from broken hip. Large adenomatous goiter.	2	No recurrence 7 years 10 months after first operation. Living and well —87 years of age.
Mrs. W.	85	Large ulcerating infiltrating adenocarcinoma second valve extending one half circumference of bowel.	Marked vascular sclerosis. B. P. 220/120. Frequent extrasystoles. Loud systolic murmur at apex.	1	No recurrence 9 years after operation. Living and well—94½ years of age.

the bowel, caution must be used to avoid penetrating the bowel wall, with a resulting peritonitis. It is not well to plan on totally removing the growth at the first operation—especially if it is extensive. All cases that are far advanced usually have to be subjected to a second operation, either because of the patient's feeble condition or the extensiveness of the growth. The operation must not progress too rapidly because of the intense heat that develops. Smoke accumulates during the coagulation but this can easily be removed by a suction apparatus attached to the proctoscope or introduced separately.

There is usually very little postoperative discomfort. The patient is kept on a liquid diet during the first two days and after that a low-residue diet mostly semisolid. Beginning the third day moderate doses of liquid petrolatum are given morning and night and there is as a rule very little discomfort at stool. The time confined to bed depends on the patient's general condition and the location and severity of the lesion. Most patients are out of bed and about within a week.

I have not been confronted with any serious complications. There has been no postoperative bleeding. If this should occur, it can easily be controlled by cautery. There has been no evidence of stricture, except from recurrence of the growth. The operative wound heals smoothly, and on subsequent proctoscopic examination one can easily detect when a growth has not been completely removed or when there is a recurrence. Patients should be carefully examined by proctoscope in six to eight weeks following the operation for evidences of any remaining growth. If any is present, it is again carefully coagulated.

I have now performed twenty-one operations on ten patients by this method. All were inoperable because of advanced age, associated lesions, or the growth itself had progressed too far to admit removal. In four the growth was located in the rectal pouch below the peritoneum, while in six it was situated at or above the rectal shelf in the intraperitoneal portion. The ages varied from sixty-two to eighty-five, with an average age of seventy-one. There has been no operative mortality. Four died as a result of distant metastasis or extensive local recurrence. All of these, however, were located in the intraperitoneal portion of the bowel and were so extensive when first seen that a complete removal could not be done. Five are living and well without any recurrence. One has an inoperable mass in the pelvis. The oldest living patient is now ninety-four and one half years of age, the youngest sixty-five, with an average age of seventy-nine. All are still active physically and mentally at their advanced ages.

Conclusions

1. Electrocoagulation is not intended to replace the classical operations in patients who are considered surgical risks. It is advocated especially in cases which are inoperable because of advanced age, coexisting lesions or in those where the growth itself has progressed beyond operability.

2. A carcinoma located in the extraperitoneal portion of the rectum that has not penetrated into surrounding structures can be completely destroyed by electrocoagulation.

3. If the growth is located in the intraperitoneal area and is extensive, electrocoagulation can only be considered a palliative treatment. If there is impending obstruction, it can often take the place of colostomy and will relieve bleeding and offensive discharges from the rectum.

4. Electrocoagulation is particularly suitable in the aged individual who is inoperable and whose life expectancy is short. It is our duty to give them as much respectability and comfort as possible during that short period.

POLIOMYELITIS REPORTS

Wisconsin physicians must, hereafter, report all cases of poliomyelitis to the State Board of Health as well as to the local health officers. The report to the State Board of Health, under the terms of the new law, is to include the name, address, age, and description of disability of the patient afflicted.

Functional and Organic Disorders; Relative Incidence*

By MARIE L. CARNS, M. D., and ANNETTE C. WASHBURNE, M. D.
Madison

THE differentiation between functional and organic disorders presents many diagnostic considerations. The incidence of the primary functional disorders in the practice of medicine has been discussed from time to time and in most instances has been found sufficiently frequent to constitute a practical problem. This study was undertaken with these points in mind. Our general method was to divide the total cases into three chief divisions, as follows:

1. Functional disorders.
2. Organic diseases (exclusive of thyrotoxicosis).
3. Thyrotoxicosis.

Thyrotoxicosis was singled out from the large group of organic diseases in this study for several reasons. In the first place, there is quite a frequent confusion between the milder thyrotoxic states and certain functional disorders, namely, the so-called neurocirculatory asthenias and anxiety neuroses (which are confused with Graves' disease) and the menopausal syndrome (which is confused with toxic adenoma of the thyroid). Also, because a consideration of thyrotoxicosis arises in so large a percentage of female patients in this locality, either being suggested by the referring physician or some member of the hospital staff, it seemed interesting to obtain some definite figures as to its incidence in such a group as this.

Functional Disorders

The statement is frequently made that a large percentage of cases referred to the internist is functional. This somewhat ambiguous remark needs further investigation. In the first place, to what do we refer by the term "functional"; in the second place, is a "functional reaction" always necessarily pathological?

It appears obvious that inasmuch as man is a unit, any physical ailment will tend to produce some mental or emotional response. To these responses we may apply the word functional in its broadest sense. The pattern and extent of these responses will depend upon a number of personal and environmental factors which vary with the individual. Thus a similar somatic stimulus may give rise in one patient to a paranoid reaction, in another to a schizoid, and in others to manic or hysterical reactions.

It is also clear that these functional elements may, on occasion, so overshadow the underlying physical changes that the patient is considered psychoneurotic and the disease process overlooked. In a recent article by Comroe,[1] this idea is well summarized as follows: "Neurosis is really an emotional instability out of proportion to the actual organic impairment of the patient. The point frequently overlooked is that neurosis and organic pathology may and often do coexist, that either may be the forerunner of the other, or that both may be entirely separate from one another. The 'neurotic' is apt to be regarded by the general practitioner as a nuisance rather than as the very sick man that he really is."

Whether the psychic instability is causative (as it may be in the case of spasticity of the colon), contributory (as in the fear reactions associated with surgery), or merely coincidental is another matter. But it would seem that unless we limit our use of the term functional to the causative or strongly contributory groups, statements concerning its frequency mean very little.

The following statistical survey concerns itself with those women who were admitted directly to the women's medical service. The fact that they had undergone a selective process before admission explains to a large extent the low percentage of functional diag-

* A study based on 2,388 cases admitted to the Women's Medical Division of the Wisconsin General Hospital in 1935.

From the Department of Medicine, Wisconsin General Hospital, University of Wisconsin, and the Wisconsin Psychiatric Institute.

noses. For this reason, the number of women with primary functional diagnoses admitted to the neuropsychiatric service for the same year has been added for the single estimation of total percentages. It was felt that the total of these two groups would more correctly simulate a cross section of the patients referred to a general practitioner, where no selective process is operative.

TABLE 1

	Total admissions	*Functional diagnoses*	*Percentage of functional diagnoses*
Women's Medical Service in 1935	2,388	289	12+
Women admitted to Neuropsychiatric Service in 1935	478	217	43+
	2,866	506	

These 506 cases represent 17+ per cent of the total admissions to the combined services. It will be noted that even these combined figures give a lower percentage than might be anticipated. To quote a few of the estimated percentages, Ebaugh[2] found an average of 35 per cent as the frequency of psychiatric problems in general medicine, Ziegler[3] found an average of about 20 per cent and Weiss,[4] in 200 consecutive private patients, found 35 per cent in whom the illness seemed to depend entirely on emotional problems, and an additional 35 per cent in whom the illness seemed in part dependent on emotional problems.

Detailed Survey of the 289 Cases Diagnosed as Functional

TABLE 2

(DIVISION IN GROUPS)

Group I

	Total number	*Percentage of total functional diagnoses*
CAUSATIVE FUNCTIONAL	139	48+
In this group, whatever physical complaints were present could not be objectively verified and were therefore interpreted as manifestations of the underlying psychopathology.		
Group II		
CONTRIBUTORY FUNCTIONAL	61	21+
In this group, physical pathology could be demonstrated in addition to the functional state. Since there was objective evidence to support the symptoms, the functional element was considered here as a contributory factor.		
Group III		
THE MENOPAUSAL SYNDROME	89	30+
These patients were placed in a separate group as the involutional state does not lend itself readily to a cause or effect classification from a psychiatric point of view.		

TABLE 3

Consultation Rendered

Total number	*Number seen by psychiatric consultant*	*Percentage seen by psychiatric consultant*
289	107	37+

TABLE 4

Age Grouping

Average age for all groups (there was a wide fluctuation from 14 to 70 years of age)	37 years
Average age for menopausal group	44 years

It was noted that there was a tendency for functional disturbances to predominate in the late thirties and this is not surprising if one takes into account the approaching involution and the fact that at this age the average woman has fewer distractions (children older and less demanding, fewer new positions offered her, etc.), and, hence, more leisure for self-analysis and introspection. The additional supposition of libido increase in the late thirties furnishes another reason for unrest and neurotic reactions.

TABLE 5

Diagnoses

The variety of psychiatric or functional diagnoses made in these cases does not permit ready classification. For practical purposes, therefore, these diagnoses were rearranged under the two general headings of psychoses and neuroses. As there has been a divergence of opinion concerning the definition of these terms, it seems wise to explain their use in this paper.

Psychosis—A serious mental-emotional illness, affecting the entire individual and resulting in disorganization of the personality. A psychosis is considered as representing a total failure in adjustment.

Neurosis—An exhibition of maladjustment of the individual to his surroundings. A neurosis is considered as representing a borderline state, a pathological attempt at adjustment.

It is appreciated that the grouping together of all nonpsychotic diagnoses under the term neurosis may give rise to criticism. It can only be stated in extenuation that twenty-four different nonpsychotic diagnoses offer a problem in classification which appears too complicated for a general survey.

In the three groups of patients, the following classifications were made:

Group I—Causative Functional		
Diagnosed as various forms of neurosis		134
Diagnosed as psychosis		5
Manic-depressive insanity	1	
Senile arteriosclerotic psychosis	2	
Dementia praecox	2	
Group II—Contributory Functional		
Diagnosed as various forms of neurosis		60
Diagnosed as latent neurosyphilis without psychosis		1
Group III—Menopausal		
Diagnosed as nonpsychotic (menopausal symptom giving rise to neurotic reactions)		86
Diagnosed as psychosis		3

Thus it appears that out of 289 cases, only 8 (2+%) were psychotic, whereas the great majority, 281 (97+%) had neurotic manifestations.

Thyrotoxicosis

A diagnosis of thyrotoxicosis was made in ninety-five cases. This diagnosis was based on the conclusion reached as a result of history, of physical findings and of at least one and usually repeated basal metabolic rate determinations. The percentage of thyrotoxicosis was lower than the writers anticipated, and this is probably due to the fact that it is so frequently suspected by the referring physician, or some one of the four routine examiners in the hospital, only to be subsequently ruled out. The percentage of the total admissions was 3.9+. Of the total group, nineteen (20%) were the toxic diffuse variety and seventy-six (80%) were the toxic nodular type. As verified by histologic studies of the excised gland, the age range of the toxic diffuse type (Graves' disease) was thirteen to sixty-seven years and of the nodular type, twenty-four to sixty-seven years. Subtotal thyroidectomies were performed in seventy cases (73+%); roentgen therapy was used in twelve (12+%) and no therapy was used in the remainder (13+%), either because it was refused or was impossible for some reason. In only fifty-five of these ninety-five cases was a diagnosis submitted by the referring physician, and of these fifty-five, forty-seven (85%) diagnosed some pathology of the thyroid gland. This would seem to indicate that thyrotoxicosis which is actually present is recognized in the majority of cases, usually without the assistance of a basal metabolic test. However, in an additional sixty-three cases, there was also an admission diagnosis of thyrotoxicosis, and in these sixty-three cases, the diagnosis could not be verified clinically, nor by one (and usually more than one) basal metabolic rate determination. That is, there was an additional group of 66 per cent (of the total number of cases of thyrotoxicosis) where this diagnosis could not be verified after complete studies. Of these, twenty-eight (44%) received a final functional diagnosis. These figures, then, would seem to suggest that, at least in this group, thyrotoxicosis is generally satisfactorily recognized when present, but is too often diagnosed when not present. The practical value of pointing this out lies in the fact that most of these patients come to the hospital convinced that their thyroid is responsible for their symptoms, and the problems of effective psychotherapy are greatly increased in such a case.

It is of slight incidental interest that malignancy of the thyroid (verified in each case by biopsy or autopsy) occurred in four cases (0.6%) of the total admissions. The age range was fifty-five to sixty-six years.

Summary

1. Of 2,388 cases admitted to the Women's Medical Division of the Wisconsin General Hospital in 1935, 12+ per cent were diagnosed as functional disorders.

2. Of 2,866 cases admitted to both the Women's Medical Division and the Women's Neuropsychiatric Service during the same time, 17+ per cent were diagnosed as functional disorders.

3. A statistical survey of the functional and thyrotoxic cases is presented.

4. It is recognized that these figures represent tentative rather than final diagnoses insomuch as functional and organic conditions may frequently be confused.

5. The necessity for prolonged observation is evident if more definite conclusions are to be reached.

BIBLIOGRAPHY

1. Comroe, B. I.: Follow-Up Study of 100 Patients Diagnosed "Neurosis." J. Nerv. & Ment. Dis., 83:679–684 (June) 1936.
2. Ebaugh, F. G.: Crisis in Psychiatric Education. J.A.M.A., 99:703–707 (Aug. 27) 1932.
3. Ziegler, L. H.: Mental Hygiene and Its Relationship to the Medical Profession. J.A.M.A., 97:1119–1122 (Oct. 17) 1931.
4. Weiss, E.: Personality Study in the Practice of Internal Medicine. Ann. Int. Med., 8:701–709 (Dec.) 1934.

The County Asylum; A Hospital in Fact*

By H. H. CHRISTOFFERSON, M. D.
Colby

I AM not a reformer finding fault with the work that we, as county physicians, are doing in caring for the insane of our State.

However, I believe we can and should do more for our patients than we are doing. Our system of caring for the insane is very different from all of our neighboring states, which have only a few large institutions. We have, in Wisconsin, about 2,000 in our state institutions, and about 8,000 in our thirty-seven county hospitals. Therefore, we, the county physicians, have by far the greater responsibility, because we have four times the number to care for.

I believe it is a generally accepted theory that when a patient is sent to us from the State, all we have to do is care for his gross physical ailments, such as a fracture, strangulated hernia, pneumonia, or the like, that when we have taken care of such ailments, our duty is performed. I do not believe our duty should end there.

We should have the teeth of all our patients examined by a competent dentist, and have all carious and abscessed teeth extracted. We should examine their eyes and have defects corrected by glasses, thus bettering the condition of those who are able to work or intelligent enough to read. We should examine our patients for any enlarged or toxic goiters that may become a menace to their health. If possible, a basal metabolism test should be made. Any loss of weight, or chronic cough should be carefully observed. If necessary, a temperature and pulse chart should be made; the sputum examined, and stereoscopic radiographs taken of the chest to determine whether we have a case of tuberculosis. If this is present, they should be sent immediately to Itasca, in Douglas County, where we now have a special hospital for the treatment of tuberculous insane. The heart should be examined to determine any lesion of this organ. We should determine whether our patients have pelvic tumors, hernia or any rectal disorder.

To do this work, as suggested, may call for some laboratory and hospital equipment, which some of us may not have at our disposal now. As these patients come under our observation, a card index record should be kept of the examination and findings, so it can be referred to at any time. All this is for the purpose of doing what we can for the physical ailments of our patients, and, of course, also to eliminate, as far as possible, anything that might act as an irritant on their mental condition.

With all this done, I still think our work is *not* finished. I venture to say that each one of us has some inmates who have what we call disturbed spells. Some of these patients may go along for weeks and be very quiet, and many of them are useful helpers about the institution. Then, like a thunderbolt in a clear sky, they have a brain storm. They suddenly become a menace to all other inmates and a real care to the attendants. In many cases, it becomes necessary to resort to human restraint.

To this class of patients, hydrotherapy is the only real, sane treatment. Hydrotherapy was unheard of in this country prior to 1893, while in Germany, France, and even in the remote country of Greece, it was almost in general use for nervous and mental diseases. Our own state institutions are now well equipped for that mode of treatment.

During my vacation this spring, in May and June, I visited the state institution at Salem, Oregon. I made a special inquiry of the doctor to whom I was introduced, as to what they did for their disturbed patients. I asked to see all cases in restraint. He informed me that they did not have many. They have no more in restraint with a population of 2,500 than we have in the Clark County Asylum with a population of 325.

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

I visited another state institution at Tacoma, Washington. As I was introduced to the superintendent, he said he was very glad to meet a doctor from Wisconsin, because, he informed me, he was writing a paper condemning our Wisconsin county system. His criticism was, that we farmed out the bulk of our patients to our county asylums, which have little or no real modern equipment or facilities for treatment.

I found at Tacoma, Washington, as I did in Oregon, only a very small number in restraint, and the reason for this is, that they are using the prolonged bath for all disturbed patients. It is today a generally accepted fact that warm baths diminish arterial tension and reduce the irritability of individual nerves as well as the whole nervous system. It is, therefore, the ideal treatment for all nervous and mentally disturbed patients. This, of course, may, in some cases, be accompanied by sedative drugs, such as morphine, luminal, bromides, etc. We should observe the form of insanity with which we have to deal, especially if the State has made the diagnosis. Four other essentials are: (1) A trained consultant to visit the county institutions, perhaps at regular intervals. (2) A trained nurse who should also act as technician. (3) A postgraduate course in psychiatry for the county physicians. (4) The State should prescribe and formulate uniform medical records so that the findings of the physician would be accessible and the whole system uniform in all county institutions.

In conclusion, if we will equip our institutions with laboratory and hospital facilities, and especially with bathtubs so that we can use the most modern hydrotherapy treatment, as I have here outlined, I see no reason why the county institutions cannot be made an ideal modern hospital for the care of our chronic insane. If we will put our shoulders to the wheel, we should be able to convince our trustees that the equipment that I have mentioned should be procured and installed. We should be able to show, not only our trustees, but also the State Board of Control and the State Legislature, that we are operating up-to-date hospitals for the care of chronic insane. If we do that, it should not be hard for us to show them that work of this kind is worth more money. I further believe, that, if this were carried out, we would be able to show our neighboring states that the small county unit, which they have ridiculed and condemned, is the ideal system, because, after all, the small unit is the more proficient system of caring for the insane.

Needs for Closer Cooperation Between State and County Institutions*

By M. K. GREEN, M. D.
Mendota

WE HAVE in Wisconsin the following state institutions that hospitalize patients suffering from nervous and mental disorders: Winnebago State Hospital; Mendota State Hospital; Central State Hospital for Criminal Insane; Wisconsin Memorial Hospital; and Bradley Memorial Hospital, which is one of the units of the State of Wisconsin General Hospital. In addition, Wisconsin has 35 county asylums that hospitalize patients suffering from chronic mental disorders.

Milwaukee County has an institution for the care of acute mental cases, and another for the care of the chronic insane. The Milwaukee institutions are operated separately, with the personnel of these institutions selected by the Board of Trustees.

The state institutions, with the exception of the Bradley Memorial Hospital, are operated under the direct supervision of the State Board of Control, and the personnel of these institutions is selected through the

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

State Bureau of Personnel. The Board of Control appoints the officers of the various state institutions, but when a vacancy occurs the board must select an officer from the eligible list that is furnished the board by the Personnel Bureau.

The officers of the county asylums are selected by the Board of Trustees, representing each county asylum. Those holding positions subordinate to the officers are selected by the superintendent. The policy of operating the county asylums and the type of treatment given the patients in these institutions must conform to that as outlined by the Board of Control. Because of the general supervision given the state and county institutions by the Board of Control, and because of the similarity in the types of cases treated in these institutions, it is obvious that there should be proper cooperation between the state and county institutions.

For the information of those who have not familiarized themselves with the types of cases hospitalized in the Mendota State and Winnebago State Hospitals, I will enumerate the following: those suffering from nervous and mental disorders, those afflicted with venereal diseases, those suffering from acute and chronic alcoholism; and those who have become addicted to the use of narcotic drugs.

It may be of interest to some of you to know that persons afflicted with nervous or mental disorders may be regularly committed to one of the state institutions by the county judge of the county in which they have a permanent or temporary place of abode, or they may be admitted as voluntary patients after they have signed a voluntary admission blank, supported by the certificate of two physicians to the effect that the person making application is in need of treatment. Patients may be committed to one of these institutions by the Board of Control acting as a commission in lunacy, but this is rarely done. We receive, in addition, a number of patients who are committed on an order of detention issued by a court of record. Patients are also received at state hospitals from other institutions through order of transfer issued by the Board of Control.

Practically all patients suffering from mental disorders who require hospitalization, or those who desire treatment in a public institution, are first admitted to one of the state hospitals. It will be of some interest to those unaware of the fact that during recent years 30 per cent of those admitted to the Mendota State Hospital entered voluntarily.

During the fiscal year ending June 30, 1935, there were admitted to the Mendota State Hospital 988 patients, and a total of 1,864 patients received care and treatment at one time or another during this period; and during the fiscal year ending June 30, 1936, there were 1,094 patients admitted and a total of 1,970 patients were hospitalized at one time or another during that period.

During the biennium which ended June 30 last, 655 patients recovered and were dehospitalized, 542 improved sufficiently to warrant their release on parole, 262 left the hospital as unimproved, and 420 were transferred to county asylums.

From the above figures indicating the number that was transferred to county asylums, it will be seen that a large percentage of the patients admitted to the Mendota State Hospital was suffering from chronic mental disorders. After patients have been hospitalized for a period and have been under observation sufficiently long to determine definitely that they are suffering from a chronic mental aberration, they are transferred by order of the Board of Control to one of the county asylums.

It is our policy to hospitalize patients for a period of at least six months before they are selected for transfer to county asylums. The cases to be transferred are selected by our medical staff, approved by the superintendent, and then recommended to the Board of Control for transfer. The following types of cases are the ones usually selected as suitable cases to be cared for in institutions for the chronic insane: those suffering from cerebral arteriosclerosis, dementia praecox, mental deficiency with or without psychosis, senile psychoses, epilepsy with psychosis, and chronic paranoid conditions.

It is not our policy to recommend for transfer any cases who are suffering from physical ailments that require daily medical and nursing care or active medication, those

who are crippled or helpless, those who are noisy, violent or particularly troublesome, those who may shortly become bedridden, those who are potentially suicidal, or who are likely to elope if not given close supervision.

The history of these hospitals will show that a number of patients become actively disturbed while confined in the county asylums, and because of lack of proper facilities in these institutions to provide the proper care for these cases, it becomes necessary that they be returned to one of the state hospitals where facilities are provided for their care. The state hospitals have physicians especially trained in nervous and mental work, graduate nurses who provide proper nursing care for the mentally and physically ill, trained attendants to care for the violent and troublesome cases, a dietitian to prepare the menus as prescribed by the physicians for special cases.

It is my belief that hydrotherapy, which occupies such an important role in the treatment of mental cases, especially disturbed and troublesome types, could be used to marked advantage in county asylums. I believe that each county asylum should have at least two bathtubs properly equipped for the giving of prolonged neutral baths, and in addition several pack tables for the giving of hot and cold packs. This, of course, would necessitate the employment in these institutions of at least one trained nurse, in order that hydrotherapy may be carried out safely and successfully. In order that the patients confined in the county asylums might be made happier, more contented and useful, and efforts at rehabilitation of dementia praecox types more successful, occupational therapy might well be carried on more extensively in these institutions. A varied recreation program should also be carried on, and a certain amount of entertainment provided. A person properly trained to carry on this work should be added to the personnel of a county institution.

Special Instruction

Much of what has been said leads indirectly up to my subject of cooperation between county and state institutions. I believe that the doctors assigned to the work of caring for the patients confined in the county institutions should visit state hospitals occasionally in order to become better informed as to what is being accomplished in these institutions in the way of caring for the disturbed and troublesome types, and those requiring special medication.

Arrangements should be made whereby the attendants in county asylums could render service for a time in state hospitals in order to learn the methods of caring for the troublesome cases.

Physicians on the staff of the state hospitals or those on the staff of the Wisconsin Psychiatric Institute should visit county asylums, from time to time, to confer with the asylum physicians, superintendents and matrons relative to the care of certain types of cases, methods of examination and treatment to be carried out. I am sure it would work to the advantage of both the state hospitals and county asylums if a program were worked out whereby the county superintendents and matrons would visit the state hospitals at stated periods, particularly for the purpose of conferring on the subject of general operation of these institutions, and it would give them an opportunity to receive an explanation as to why certain cases are detained in state hospitals and not transferred to county asylums.

The Board of Control should authorize the superintendent of state hospitals to send doctors on the hospital staff to visit county asylums in order that they may confer with the asylum physician, superintendent and matron, relative to the care of troublesome cases, or those which may need special care. I think it would be advantageous for the county superintendents to ask for consultation before a case is to be returned to the state hospitals.

State hospitals should, I believe, furnish the county asylums with more complete information relative to patients who are transferred to their institutions. This work would necessitate adding additional personnel to the medical staff and office force of state hospitals, as the present staff and office force in these hospitals are already overburdened with routine work.

There should be complete and wholehearted freedom on the part of the management of state hospitals and that of the county asylums to visit and confer with each other at frequent intervals for the purpose of exchanging ideas as to better methods of caring for patients in these institutions, and to give them an opportunity to discuss necessary improvements in the physical setup of these institutions.

As farming is a major project in both state hospitals and county asylums, closer cooperation between the management of these institutions would be quite advantageous. It would give them an opportunity to discuss to advantage the benefits patients derive from this type of occupation, a chance to discuss dairy improvements, hog raising, fertilization of soils, the production of seeds, etc.; to relate their experiences in producing foods on farms and gardens more profitably to institutions. This is very necessary from the standpoint of operating these institutions economically. These institutions might profit materially by having county asylum superintendents and state hospital stewards exchange ideas as to methods of purchasing foods and general hospital supplies.

I am sure that the Board of Control would welcome any ideas that would bring the management of the state and county institutions in closer relationship in the interest of the patients, and I hope the time will soon come when there will be a more complete cooperation between the state hospitals and county asylums.

State Board of Control Medical Program*

By JOHN J. HANNAN
President, State Board of Control, Madison

PERSONALLY, it is gratifying to be in this presence today to express the appreciation of the Wisconsin State Board of Control for the practical, helpful interest the State Medical Society of Wisconsin has and is evidencing in the welfare of institutions of the State and counties under the management or supervision of that Board.

The action of this Society at its meeting a year ago to name a committee to survey the medical services and the medical needs of state and county institutions was welcomed by our Board. When your committee, under the chairmanship of Dr. A. W. Bryan, demonstrated that its work was to be not perfunctory; that it was not to accept the statements of interested parties, but was to secure firsthand the facts with respect to the equipment, the medical, the nursing, the attendant personnel, and the other services having to do with the patient care of each of these institutions, we rejoiced. Here, for the first time in all the years I have been connected with these activities, we experienced a sustained, an understanding effort of a qualified professional group gratuitously giving months of time to render a service to the institutionalized unfortunates of Wisconsin. This service of the Medical Society, disassociated as it is from any responsibility of management, predicated solely upon a desire to ascertain the facts, and on the basis of such ascertainment to give to the membership of this body and to the people of the State an authoritative report upon the medical services and the medical needs of these institutions, must command the attention and merit the confidence of the people of this State.

Whatever may have inspired you to undertake this survey, I know it was not undertaken at the instance of the State Board of Control. It must have been born as another expression of the age-old urge which, through all time, has driven physicians to give of their professional knowledge and services to the betterment of their fellowmen. It is a practical response of the physicians of Wisconsin to aid the public institutions of this State to have the equipment and the personnel so that their medical services may

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

measure to the high standards which the State is, or should be obliged to provide to everyone it takes out of the homes of our people and commits to its institutions.

Institutional Populations

The populations of the state and county institutions, now numbering nearly 26,000, are a cross section of that sector of our population which cannot be handled in the home, in the school, or by the local communities. They were neglected and dependent children, incorrigible and delinquent boys and girls, young men and women found guilty and sentenced because of some criminal act, older adults convicted and sentenced for law violation, the mentally deficient, the mentally diseased, the tuberculous, the blind, and the deaf. Every class of persons in state institutions from the baby problem at the Sparta school, through the whole gamut of life from babyhood, childhood, adolescence, to manhood and womanhood, represents, to a greater degree than experienced outside such institutions, the need for the highest quality of medical services. These persons are the failures. Their failure is largely because of physical and mental defects. Their needs are largely medical. The institutional medical services will be differentiated, and will vary with the differentiation of problems assigned to each institution.

As professional men, you recognize how, through all the years of the development of civilization, there has been a gradual advance in the understanding of the human body and its ills. The enlightened world pays homage to the thought, the energy, the courage and the patience with which physicians of all times have labored to improve and better their services to their patients. For centuries, medical and surgical services were considered purely as an individual matter. While still there is and ever must be maintained the individualized relationship of physician to patient to the highest degree, as this relationship involves the greatest confidence that can exist between humans, nevertheless, in the development of present-day civilization with all of its complexities, there has developed a new, a broader conception of medicine. Under this concept, the physician not only concerns himself to attend the needs of the individual patient, but the individual practitioner and the profession with expanded vision has reached out beyond the individual patient to the great field of preventive and social medicine where humanity in mass is its patient. Its achievements within that field have been the outstanding accomplishments during the past century.

Social Changes Through Medicine

The unseen, the almost unknown, and little understood forces which push men on to greater and higher achievements and which, through the labors of the medical profession, have increased our knowledge and wrought great social changes and benefits, have been at work and are bringing about changes in other fields of human activity. Nowhere is this more evident than in the changing attitude, forced upon society in the care of the insane, of the mental deficients, of the tuberculous, of the delinquent youth and adult, of the neglected, the incorrigible, and delinquent child, and of the blind and the deaf. This change is not only the expression of humane desires, but is an expression of the economic and social necessities which have forced governments into more general and intelligent care of these classes. The day has passed when the family, the relatives, the neighbors, can take care of the insane, the mental deficients, the neglected and dependent, and all of these others; the day has passed when in the handling of law offenders, we can rely upon a mere separation and segregation of those in prisons for a short time and then to open the gates and turn them loose again, without efforts to ascertain the cause of their delinquency and to treat such in a way to safeguard, if possible, against repetition of law offending. In the economy of this time, we know it to be an absolute loss to permit the mental deficient, the delinquent, to be a drag upon the family or to permit the tuberculous to carry infection to others. We know our own protection demands that all these classes must be taken care of, so we enacted laws to provide for commitment and segregation.

It is not so many years since a commitment to a mental institution was regarded as a ticket for life separation from society. It is within the memory of many men in this audience when a diagnosis of tuberculosis was considered a death sentence. The recognition of physical defects and infections as contributing factors to delinquency is a modern development. While growth in the knowledge and the treatment of mental disorders have not kept pace with the advances in diagnosis and treatment of physical disorders, nevertheless, some wonderful advances have been made. Everyone here realizes that within the span of a lifetime, the paretic has been taken out of the class of the hopelessly condemned, and there has been developed therapy to insure early diagnosis and to make possible treatments in time to prevent or to arrest the disease. Through this, long years of useful normal life are assured numbers of its victims.

Wisconsin Experiences

In Wisconsin's two state institutions for the insane, through the state-wide Wassermann service which permits of early diagnosis, the percentage of paretics in the intake has declined from a figure of 12 to 13 per cent in 1913, to 4.6 per cent in 1936. The advance in treatment procedures of this disease has changed our evaluation of its effects. Instead of considering every case admitted as hopeless and as representing a charge for the duration of his life at a cost of about $5,000 per patient, we now discharge upwards of 40 per cent as arrested cases who can return to normal activities. Thus, through these medical aids, our cost of institutional care is about $300,000 a year less than same would be if those aids had not been discovered and were not used.

There is no need to repeat in this presence the dollar value to Wisconsin of its intelligent and comprehensive combat against tuberculosis. These examples are cited to emphasize that the objective of the State in establishing and maintaining its institutions can be attained only through equipping them to give service to insure an annual harvest, of as large a crop as is humanely possible, of salvaged boys and girls and men and women. It is not the operating cost, however large it may be, nor the state's and counties' investment in grounds and buildings that should be the criteria by which these institutions should be measured. The true measure of their worth is the size of the stream of salvaged humanity sent out of institution gates back into society equipped to be self-sustaining, law-abiding, and upright members of society.

Application of Scientific Program

The attainment of this objective and the recognition that through it was the only way in which the State could reap the benefits which should come through its charitable, curative, and penal institutions, motivated the reorganization of the activities of the Board, made in 1924, under the leadership of Dr. W. F. Lorenz. Making a personal sacrifice for the benefit of this State, Dr. Lorenz gave sixteen months of his time to this work. When he retired from the Board on July 1, 1925, I was honored by appointment as a member, and election to the head of the Board. I desire to assure you, and I cite the record to sustain my statement, that in the eleven intervening years, the attainment of that objective has been the North Star by which the Board of Control has navigated the sea of administration. With all the changes in personnel made in the Board during that time, there has been no disposition to vary the course of the ship. No matter how the adverse head winds may have halted progress, or how high the waves of criticism swept over the administration ship, at no time has there been any effort to let the ship drift with the prevailing winds. It has been held true to its course. Although progress has been slow, and at times we were forced to anchor, the pilots knew their bearings; the rough going only seasoned and made them more determined. When the weather cleared, the ship moved on the true course without loss of any gains which were made. One great aid has been a sustaining faith in the humanitarian desires of the people of this State that intelligent and efficient methods be applied to reclaim their unfortunates.

Improvements

It would be easy to interest you with information of improvements made in the conduct of children's institutions, in securing better standards, not only within the institutions, but in the conduct of child-placing and child-caring agencies in this State, or with advances made in the educational programs of all the institutions; with the development of the use of probation and of parole, and raising the standards of these services so that today in this field, Wisconsin stands the peer of any state; and with many other matters that would interest you as Wisconsin citizens. It would be an imposition upon you to take your time to do so. You are here as medical men to discuss matters of a professional nature, so what I shall present shall pertain solely to the particular field in which you are interested, in some of its bearings upon our institutional services.

While the expenditures for professional services seldom furnish a true gauge by which to evaluate the extent of such services, yet when applied to public institutions, the dollar yardstick is a fairly good measure by which to judge what the institutions may be doing. So to give you a picture of the medical services within the state institutions, there is here presented the total expenditures for medical services, medicines, operations, etc., for all state institutions, except the Wisconsin Memorial Hospital, in the year 1924, and comparing these with the 1936 costs. The Memorial Hospital is omitted as it was operated under a special fund created through the payments made by the Federal Government, and by the state rehabilitation fund, and not by a charge on the general tax bill. In my judgment, for this discussion, a clearer picture will be presented without including that institution, which at all times has had an adequate, competent medical staff, and is better equipped than the other institutions.

In the year 1923, the total medical costs paid by the State in institutions under the Board of Control amounted to $71,148.30. In the year ending June 30, 1936, in these same institutions, the medical costs amounted to $160,593.29. An increase of $89,444.99. However, a true picture must consider the population of these institutions.

For the fiscal year ending June 30, 1923, the average daily population was 5,078, and the average per capita medical expenditure was 27 cents per week per patient.

In the fiscal year ending June 30, 1936, the average daily population was 8,225. The medical expenditures amounted to 37½ cents per patient per week.

Increases in Medical Costs

These figures are interesting because they show that while our average daily population increased within that period 62 per cent, our total medical expenditure increased 126 per cent. This in itself should be an evidence of improvement, but consider that the per capita medical costs of 1936 against 1923 represents an increase expenditure of 10½ cents per week per patient, or an increase expenditure per patient of 38.9 per cent per week. This is a significant figure in that it is a clear indication that we are doing more in the medical way within these institutions.

In the mentally diseased hospital group, covering the Mendota, the Winnebago, and the Central State hospitals, the increase in expenditures of the year 1936 over the year 1923 was 109.3 per cent.

In the mentally deficient group—the Northern and Southern Colonies—the increase amounted to 162.4 per cent.

In the tuberculous setup—the State Sanatorium and the Lake Tomahawk State Camp, it amounted to 109.4 per cent.

In the penal group—the State Prison, the Reformatory, the Industrial Home for Women, the Prison for Women—the increase was 227.6 per cent.

In the correctional school group—both for boys and girls—the increase was 55.6 per cent.

For the State Public School at Sparta—the infant group—the increase was 51 per cent. In the School for the Deaf, the increase was 2 per cent, and in the School for the Blind, 28.6 per cent.

Evidence of Increase in Service

A mere statement of expenditures or the increase of same does not carry any guar-

anty of betterment of service. However, more value is given to this by study of the increase in the personnel engaged in the treatment and care of the patients and inmates of our institutions.

On June 30, 1936, there were in the employ of the medical service of these institutions, including the attendants, 716 persons. On June 30, 1923, the total number of persons in these same services, including attendants, was 260. This shows an increase of 175 per cent in the number employed against total expenditure increase of 126 per cent for these medical services.

Effect of Better Service

No need exists to elaborate here on the factor which infections play in behavior problems, especially of boys and girls. As bad health is a conduct factor, our program, not only in the schools but in correctional, reformatory and penal institutions, has particularly concerned itself to do as much as our money will allow to clear up infections which impair health and influence behavior. It would be an imposition to burden you with the mass of detailed information which could be cited from the records to demonstrate how we increased services in this preventive field. In general, we do more work in clearing up infected teeth, in removing adenoids and bad tonsils, appendiceal infections, in the repair of hernias, and in many other operative procedures necessary to restore the body to a healthful condition and thus to aid to normal, healthy thinking and living. As a member of the Parole Board, sitting every two months in these institutions, and personally contacting during the year upwards of 2,000 of the inmates, I know the great improvement, in appearance, in vigor, in attitude, in the forthright way in which these boys and girls and young men and young women face the facts of their pasts, and in their enthusiasms for the programs they make for their futures. I know these more extensive and thorough medical services are a great contributing factor to the changes in personality and in the views of life which we note.

Other than to cite one example, I do not want to say more—namely, that in the biennium 1922–24, the intake of the Industrial School for Girls was 176, and the average daily population of the institution was 227. In the biennium 1932–34, there were 186 new admissions, and the average daily population was 214. While there was an increase of ten in the admissions, there was a decline of thirteen in the average daily population. The physical conditions of the girls received in each biennium were similar.

In the biennium 1922–24, there were performed ten tonsillectomies at this institution. In the biennium 1932–34, there were 104 tonsillectomies. The efforts made to remove these infections increased by ninety-four–940 per cent. The figures speak for themselves. We could not claim as high an increase in every institution. But as in this institution, so in every other we are receiving more and better services for the money expended for medical attention to the patients and inmates.

As I left the office, this noon, a computation was handed me showing that the 1936 expenditures for dental services in these institutions exceeded like expenditures for the fiscal year 1923 by 753 per cent.

Psychiatric Field Service

The outstanding medical achievement of this period has been the services rendered through what we term our Psychiatric Field Service. In 1924, the need of a psychiatric service in connection with the penal, the reformatory, and correctional institutions was recognized. None of the operation funds had money to employ a psychiatrist or a psychologist. By making savings in the office appropriation of the Board, it was found that for a two-year period, a psychiatrist and another physician to make physical examinations could be engaged. It was determined to have a traveling psychiatric service for the penal and correctional institutions. This service was set up. It has carried on. It proved to be in large measure more beneficial than separate organizations within each institution, for the reason that it brought about uniformity in method of procedure. Like many developments made out of necessity, it has proved to be better

than its originators believed it would be. Not only has it been of great service to the Board in that it has given to it information it never otherwise would have, and which has an important bearing on the administration of parole, but it has also enabled the Board, because of early findings of mental disease, to give effect to that splendid law which clothes the Board with power to transfer the inmates of these institutions, who are mentally diseased or mentally deficient, to mental hospitals. It has been an inspiration and an aid in the betterment of medical services within the institutions. Always contending for the application of the highest standards and the use of the most approved procedures, contending against age-old prejudices by knowledge, patience and a wise leadership, it brought about a change in institutional attitudes and the recognition of the value of good medical service in the discipline of institutions and in the attitudes and conduct of inmates.

While there has been some expansion of the personnel of the Psychiatric Field Service, we have never been able to expand it to the degree which the demands of our institutions and our extra-institutional services require.

Medical Program for Probation

You are all more or less familiar with the development in Wisconsin of probation as a substitute for prison or reformatory care of convicted law offenders who, in the judgment of the court, may be rehabilitated without prison experiences. Wisconsin today stands at the forefront in its state-wide probation service. The expansion of that service was based upon the quality of the personnel selected to administer it. The probation law on the statutes for eighteen years was allowed to drift until, under the reorganization, it was really made effective. An understanding of the growth is evidenced by the fact that in 1925–26, the daily average of those who were on probation was less than 300, and it is now in excess of 1,600. It has been the contention of the Board of Control from the first that, prior to the acceptance of a man on probation, there should be a mental and physical examination, and yet we have not been able to furnish that service to the courts of this State. We have never been provided with the money. We worked out a makeshift plan three years ago by which we would provide the courts with medical forms and that there should be a physical and mental examination made by local physicians prior to the determination to place the men on probation. We asked for a small appropriation so local physicians could be paid a modest fee for making these examinations. We were not provided with the money. So we have never gone forward with the plan. We contemplated employment of one additional psychiatrist and another doctor to work in our office. These men were to study the reports and to advise courts on the basis of the information furnished by local physicians. Such examinations would not be as scientific or as effective as would the personal contacts of psychiatrists with these cases, but it would be better than the absence of examinations. In some cases, it would certainly give opportunity to detect conditions to warrant hospital treatment rather than to have them placed on probation, and because of physical or mental defects to fail as now is the case in many instances.

Overcoming Tradition

No one without experience of institutional administration can have any conception of the weight of the load of tradition and precedent. Nowhere do men and women resist the application of new methods so persistently and for such a long period as in public institutions. It may be this is so because they are public institutions and are subject to continual unprovoked harrassing and fear of the criticism which comes with any innovation. Father and grandfather did it this way, and they always satisfied the public; therefore, we should continue the methods which they found to be satisfactory. That seems to express the attitude.

We have experienced this through the years of our efforts to bring about the acceptance of many of the items of our program of increased and better services. Some may believe, and naturally so, that all that is

required to bring about a change in methods is an order from the administrator. It would be so if administration was to be through the use of the "big stick" with all the consequences which follow such use. Let me assure you that it requires more than the fiat of an administrator to change routine and practices grounded in three quarters of a century of use. It requires a long period of re-education in, and readjustment to the new procedure, to preserve the good, valuable experience of old employees and bring same to fit these new procedures as part of the institutional routine.

The promotion of the venereal disease treatment procedures, now routine in these institutions, is an excellent example of the truth of this. It was with a smile and a smirk that the first orders with respect to Wassermann services and the program for the treatment of venereal infections were received. In an institution not a hospital but where hospital treatment is an incident of the general routine, it requires more than the cooperation of the physician to give effect to a medical program. There was patient resistance; there were wisecracking guards and minor officials; there was the agnosticism of superintendents who had a "show me" attitude toward the new order.

A Continuous Educational Program

The Psychiatric Field Service physicians, moving constantly from one institution to another, carried the gospel of the need of thorough diagnosis and treatment of physical ills. Gently, firmly, and steadfastly they insisted upon recognition of infections as a cause factor in crime and in disciplinary problems within the institutions. They demonstated, by early diagnosis of mental symptoms and the removal of such cases to hospitals, how disclipline was improved. If these things failed to promote better discipline, the lay personnel would have continued to believe the venereal treatment, the removal of bad tonsils, and infected teeth, and the whole medical program to be a fad or a fancy which would be discarded with a new administration. Maybe this conclusion was right. It was the continuity of the policy over many years which brought about its acceptance. However, it is the policy. It is accepted. It is recognized as the most thorough treatment program followed in like institutions in any state.

Not only this, but in every branch of medicine and surgery has this service exerted a wholesome influence. Its examinations have been thorough. Its recommendations have been made conservatively. It has followed up these recommendations with the institutions and with the Board, and has kept before us the medical needs not only of individual patients, but of the institutions. It has coordinated its work to the educational and to the work activities, and is in large measure responsible for the fact that we are sending out of these institutions young men and young women in better condition to meet the world, to understand and to face their responsibilities than has ever heretofore been the case in this State.

No one should mistake the purpose of the presentation of the foregoing facts. The statements made based on the records were not to carry to you or to the State any idea that the State Board of Control is satisfied with the indicated improvement, nor does it believe that the betterment of treatment services during the past twelve years represent the ultimate in medical attentions which should be available to the patients and inmates of the institutions.

During this twelve-year period, the populations of these institutions have increased 62 per cent. The operating appropriations of the institutions have increased 24.1 per cent. The increase in the medical service in large measure has been achieved through great personal sacrifices by those employed as a result of the change of emphasis made at the time of the reorganization, and which has been sustained through the years.

Humane Administration

While never losing sight of its obligation to the taxpayers of this State to economically administer the institutions and services given to its management, the State Board of Control has recognized, as in June, 1924, it announced it would recognize, that its paramount obligation is to secure humane ad-

ministration, and that humane administration is attained by compelling services to make it possible for these institutions to discharge a greater number of persons equipped to carry on normally, and this only can be assured by a better treatment program for the persons given into their care.

The Board emphasized to the 1925 legislature that the greatest need was a larger and a better qualified personnel. It also, at that time, went on record by saying that the institutions were not only undermanned, but that, through the years, there had been neglect in providing buildings and equipment to take care of the growing needs of the State, and to apply the most modern methods of hospitalization, of education, of home investigations, of placement, and of all the things necessary to a properly and efficiently operated rehabilitation program. It pointed out that buildings and equipment had a direct relationship to adequate service. It asserted that at that time, the State justified the maintenance of only partially equipped institutions, and that it would be benefited by providing buildings and equipment and personnel to insure the doubling of its output of successfully handled cases.

It presented at that time, a building program covering a ten-year period. It asked for a total of some $11,000,000, of which nearly $7,000,000 was to provide hospital and medical equipment for the insane, the feebleminded, the tuberculous, for the neglected, dependent, and incorrigible children of the State, and for the reformatory and prison. From 1923 through 1936, there has been expended for new construction $3,070,614, of which there was expended for new patient buildings and new medical equipment in all these institutions $1,695,362.

The passing of the years has not lessened the needs. It was said in 1925 that the then needs represented the cumulative demands of years of failure, and that, unless there be a program to absorb the neglects of the past, the State would have to face a greater increase in expenditure, as the piling of neglect upon neglect would continually mount. This is cited to show that the most recent presentation of the needs of these institutions has justified the 1925 vision of the Board.

Present Institutional Needs

In 1934, the Board of Control made a new study of institutional building and projected the suggested building program to the year 1950. In this study, it took account of the present institutional populations, population trends, the rate of intake of each class of institution, and all other factors bearing upon the project. It estimated the cost to exceed $13,000,000, and of this, almost $10,000,000 will be needed to care for medical needs, housing and equipment. Every day we neglect the beginning of this work, we add to the load of future generations. This failure tends to confirm a policy that will keep at large, in the population of the State, numbers of insane, of mental deficients, and of others. It is terrible to contemplate the results of the failure to place into the hands of those who care for these classes the tools with which to do the job the State obligated itself to do when it enacted the laws that take these people out of the homes and places them in institutions.

I shall not take your time to go into the details of this program. I have here copies of the future building program projected by the State Board of Control. These are here for your information. You will find there the graphs which we have prepared to support the need and to sustain this program.

With all the increases in personnel made during the intervening years, the Board of Control never has received from the legislature money to employ the number of doctors, or nurses, or other medical aids which it has requested. In that time, recognizing all of the things with which the legislature had to contend, the Board has been most conservative and careful in making its requests, both for personnel and for buildings.

Most Pressing Building Needs

In the building needs of institutions, the providing of housing and hospital quarters at Union Grove to care for some of the waiting load of mental deficients; the building

and equipment of a hospital at the Prison; and the completion of the Industrial School for Girls at Oregon, are the most pressing. The plans and detailed drawings for these, and for a new baby cottage at the Sparta school are ready, and have been for a long time. The failure to do anything to meet the growing hospitalization demands for the insane is daily making the situation more acute. Twelve years ago, the attention of the legislature was directed to this situation, and to how the increasing admissions reduced the average number of months of treatment. The counties, under the Wisconsin system, are to care for the so-called chronics, and have met their obligations better than the State. While not so intended, these county institutions have absorbed a large number of mental deficients. If the State met this problem, as it should, colonies could absorb these and the mental deficients in state hospitals and thus release beds primarily intended for the mentally diseased.

Every one of these institutions should be equipped with basal metabolism equipment, with x-ray, with laboratories for analysis and with every necessary aid to diagnosis and for treatment. While it is true that we have some of our institutions equipped in a way to make within the institution proper diagnosis and to give proper treatment, nevertheless, for the most part, we have makeshift operating rooms, crowded and inadequate dental rooms, no proper place in which physicians and nurses should work. We are without hospital beds, we are short in hydrotherapy, we are short in physiotherapy. We begged for occupational therapy equipment in these institutions, and we are without it except that which we have improvised, and what, when compared with proper equipment, is just ludicrous.

Again referring to the personnel, there is not one of these institutions but should have a permanent full-time physician. Instead of having a few permanent full-time dentists, there should be one at least in every major institution. With the increase in personnel which we received by the so-called eight-hour-day law, which only applied to guards, attendants and nurses, we still are thirty graduate nurses short of the number requested and necessary to insure proper attention to these patients. We are still short of hydrotherapists, of physiotherapists, of attendants, and of physicians. We are extremely grateful that in spite of the handicaps we labored under, we have been enabled to make the progress indicated to you.

COMMITTEE ON MENTAL HYGIENE AND INSTITUTIONAL CARE

A fourth paper in this symposium on care of the insane was presented by Dr. Albert W. Bryan, Jackson Clinic, Madison, chairman of the Committee on Mental Hygiene and Institutional Care. The substance of this paper was also presented before the House of Delegates and is to be found in the proceedings of the House, on pages 986 to 989, inclusive, of the Wisconsin Medical Journal, December, 1936.

Conclusion

In beginning this address, I thanked you for the interest you have taken, and for the sacrifices made by your committee. To me, it spells an awakening. If this be true, and if the members of this Medical Society will carry back into their local communities the knowledge of needs which have been ascertained by your committee, and will, as citizens of this State, continue not only the interest of this committee, but expand that interest beyond the personnel of the committee to every member of this Society, I am sure that through all the personal contacts you have, you will be able to arouse a practical interest in the care the State should give to its unfortunates. If the State is to meet its obligations to these, it must meet them in a thoroughgoing, scientific way. That is the only way to insure that it will reap ultimately a benefit through the greater and greater numbers that it will be enabled to salvage, and thus to put a brake on the mounting costs of dependency, neglect, delinquency, and crime.

Atypical Tuberculosis; Report of Case

By R. H. STIEHM, M. D., JANET McCARTER, PH. D., and H. R. GETZ, M. D.*
Madison

THE following case was diagnosed as tuberculosis pathologically from biopsy material, but was clinically atypical and a reaction to mammalian tuberculin was absent. There was a reaction to avian tuberculin, however. These facts have led us to report this case and to discuss it from the standpoint that the etiological agent may be some acid-fast bacterium other than the human or bovine tubercle bacillus.

Case Report

H. C. L., a senior medical student, reported to the Student Health Clinic on November 8, 1934, complaining of pain in the left side of his face and of a sensation that something was wrong with the left temporomandibular joint. These symptoms had been of six weeks' duration. Slight swelling and tenderness were present at the angle of the left mandible. Roentgenograms of teeth and left temporomandibular joint were negative.

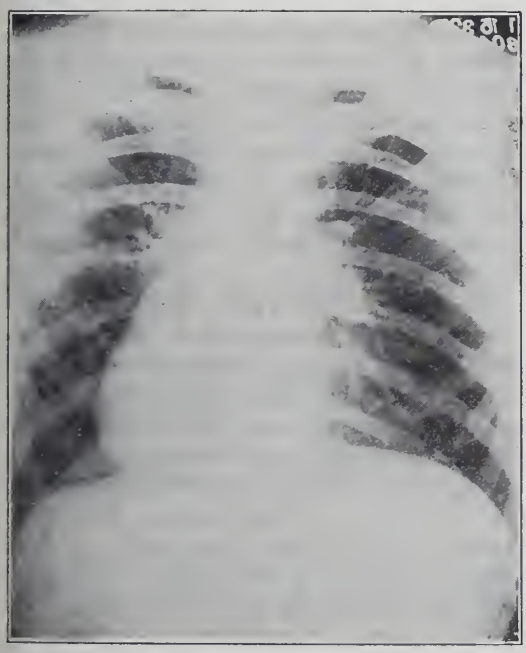


Fig. 1

The past medical history included measles, mumps, and whooping cough in childhood. In November, 1932, painless hematuria had been noted on two successive occasions. A genito-urinary study which had included a cystoscopic examination, a pyelogram, and inoculation of guinea pigs, had been entirely negative. Rabbits had not been inoculated. A roentgenogram of the lungs in 1932 had shown nothing pertinent (fig. 1).

During the six months from November, 1934, to May, 1935, a discrete tumor slowly developed under the left parotid gland just anterior to the lobule of the ear. There were no constitutional symptoms. Removal of the tumor for diagnosis was thought desirable. The tumor approximated the size of a hickory nut and measured on excision (May 25, 1935) about 2½ cm. in diameter.

Macroscopic examination of the tumor showed a firm and homogeneous tissue. The report of the microscopic examination follows: "Sections show encapsulated tissue made up almost entirely of hyperplastic tubercles. A few irregular giant cells are seen. There is no caseation. Diagnosis: hyperplastic tuberculosis."

The patient was hospitalized for a period of four days for further study. He stated that since March, 1935, he had noted enlargement of glands above the right clavicle. Other than the discom-

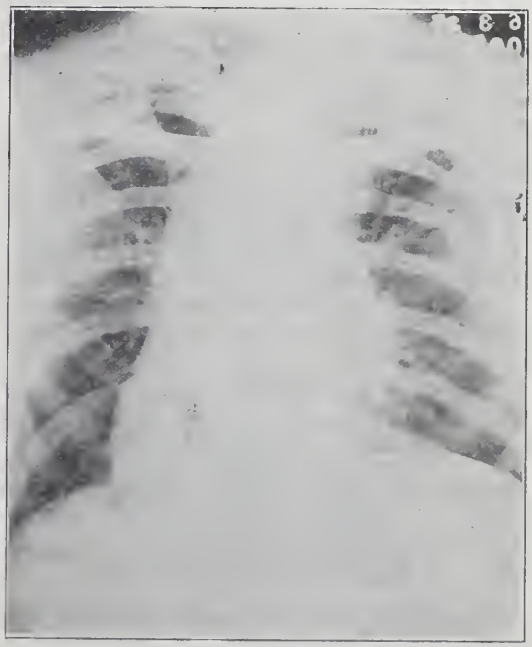


Fig. 2

* From the Departments of Student Health, Agricultural Bacteriology, and Medical Bacteriology, University of Wisconsin.

fort noted from the troublesome gland in the region of the left parotid he had no complaints.

A physical examination revealed a well-developed and well-nourished individual, apparently enjoying very good health. Pertinent findings were as follows: Several palpable glands varying in diameter from 3 to 12 mm. were present above the right clavicle. Examination of the chest revealed only impaired resonance in the first and second left anterior interspaces. Temperature and pulse were normal on all occasions.

Mantoux tuberculin tests were negative to 0.1, 1.0, and 10.0 mg. doses of freshly diluted Saranac Lake Laboratory old tuberculin. Laboratory studies showed a normal blood sedimentation rate and negative urinalysis. No sputum was obtainable for examination. Differential blood counts were normal. Microscopic examinations of aspirated gastric contents obtained on three successive mornings were negative for acid-fast bacilli. A stereoroentgenogram of the chest on June 3, 1935, showed an increase in the supracardiac shadow on both sides of the sternum, most marked in the left first and second anterior intercostal spaces. The truncal markings were accentuated and of soft appearance (fig. 2).

On June 15, 1935, one of the supraclavicular glands on the right was removed. The report of the microscopic examination was as follows: "Sections of this node show a hyperplastic tuberculosis with giant cell formation. The histopathology of these sections is identical with that of the sections made from the tissue previously removed, except that in these sections there are occasional giant cells. Diagnosis: hyperplastic tuberculosis." Cultures made from the gland failed to show growth. A guinea pig and a rabbit inoculated with macerated gland substance were sacrificed and showed no evidence of tuberculosis at postmortem examinations made forty-one and fifty-five days respectively after inoculation.

Through the courtesy of Dr. Florence Seibert, of the Henry Phipps Institute, the purified protein derivatives of the bovine and avian tubercle bacilli, and of the timothy grass bacillus (Mycobacterium phlei) were made available. The results of tests with these tuberculins and a simultaneous test with the P. P. D. of the human tubercle bacillus, made in January, 1936, are listed in chart 1.

CHART 1

	Reaction to Purified Protein Derivative of:			
Amount mg.	*Human tubercle bacillus*	*Bovine tubercle bacillus*	*Avian tubercle bacillus*	*Mycobacterium phlei*
0.00002	Negative	Negative	Negative	
0.005	Negative	Negative	Two plus	Negative
0.01	Negative	Negative	Three plus	

X-ray studies of the chest made in January, 1936, showed no further enlargement of the mediastinal tumor. The patient was entirely free from symptoms. Other laboratory studies were negative. His weight has remained stationary.

X-ray therapy has now been advised and initiated at another clinic.

Discussion

In this case the pathological findings and the clinical course suggested an infection with a human or bovine tubercle bacillus strain of low virulence. A reaction to mammalian tuberculin, which one would expect to find except in a very early or far advanced case of tuberculosis, was lacking, however. The factors which led us to make a test with avian tuberculin in this case should be explained.

One factor was the prevalence of infection in domestic animals with the avian tubercle bacillus. One third of the chicken flocks in Wisconsin are infected with the avian tubercle bacillus. From the chickens the infection has spread, so that now almost 20 per cent of the hogs coming into Wisconsin packing plants are tuberculous and 99 per cent of this tuberculosis is caused by the avian tubercle bacillus.[1] Recently the avian tubercle bacillus has also been isolated from the tuberculous lymph nodes of cattle.[2] In hogs and cattle the avian tubercle bacillus produces, usually, only a localized disease in the lymph nodes.

The cattle, from whose tissues the avian tubercle bacilli were isolated, were slaughtered because they had reacted to a test with mammalian tuberculin. This suggested to us that in humans also a sensitization by an acid-fast organism other than a human or bovine tubercle bacillus might be responsible for reactions to mammalian tuberculin. Consequently a group of university students being tested with mammalian tuberculin were also tested with avian tuberculin. The purified protein derivative tuberculins developed by Seibert[3] were used and two doses of 0.00002 and 0.005 mg. respectively were given at forty-eight-hour intervals. In general, the results of this testing were as follows: In the vast majority of cases individuals reacting to mammalian tuberculin also react to avian tuberculin, there being definite differences in the severity of the reactions, with some reacting more to mammalian and some more to avian, and some

reacting the same to both. In addition to the group which reacts to both mammalian and avian tuberculin, there is another group which reacts to avian tuberculin and not to mammalian tuberculin, but in all cases these are comparatively mild reactions to the strong dose, as was the finding in the case reported in this paper.

Obviously the significance of a reaction to avian tuberculin cannot be stated at the present time. Too little is known concerning the biological and chemical bases of the tuberculin reaction and concerning the chemical differences of tuberculins from different species of acid-fast micro-organisms, to be able to state from a scientific standpoint that reactions to mammalian and avian tuberculins are specific for sensitization by mammalian and avian tubercle bacilli respectively. In the case reported here, for instance, the human tubercle bacillus may be the etiological agent of the disease and may have altered the tissues in some way so that there is a reaction to avian tuberculin. On the other hand, the reaction to avian tuberculin may be entirely nonspecific and not due to sensitization by any acid-fast micro-organism, or it may be due to sensitization by some acid-fast organism other than those considered here. From our results in testing students and in testing cattle it can be stated that if the mammalian and avian tuberculins are specific, they are quantitatively so rather than qualitatively; that is, an individual tested with avian and human tuberculins may react to both but more strongly to one than to the other.

Again, from the empirical standpoint as well as from the scientific standpoint, there is no knowledge concerning tuberculin specificity, since there are no statistics on reactions to avian tuberculin in cases of infection in man with the avian tubercle bacillus. In the case reported here, proof of the etiology of the disease as avian tuberculosis would depend upon the isolation of the organism, which has not been accomplished. It is true that a few case reports of infection with the avian tubercle bacillus in man may be found in the literature. Branch[4] has summarized the findings in fourteen such cases in which he believes there is some basis for believing the causative agent to be the avian tubercle bacillus. The bacteriological proof presented for the etiology of these cases is, however, not conclusive. The avian tubercle bacillus has peculiar cultural characteristics and also has a characteristic pathogenicity for rabbits, guinea pigs, and chickens. In three of the fourteen cases reported there is insufficient evidence since the diagnosis was made on the basis of pathogenicity of pus from an abscess in one case, and of urinary sediment in two cases, for guinea pigs and chickens. Cultures were not obtained and rabbits were not inoculated. In another one of the fourteen cases "scant growth" is given as one of the cultural characteristics of the acid-fast micro-organisms isolated. Scant growth is atypical of the avian tubercle bacillus. In eight of the fourteen cases Loewenstein is responsible for the cultivation of the avian tubercule bacillus from pathological material and no description is given of the organisms isolated. In the two remaining cases the diagnosis of avian tuberculosis is well substantiated. In one of these cases avian tubercle bacilli were isolated from the mesenteric lymph nodes of a girl aged eight years, and from the urinary sediment of a woman aged fifty-seven years in the other case.

In five of the cases reported by Branch, reactions to avian tuberculin were positive and to mammalian tuberculin negative. Too much weight should not be placed upon this evidence. From our experience in testing with purified protein derivative tuberculins, comparative tests with old tuberculins would be of little value due to cross reactions and due to the fact that old tuberculin is not standardized chemically as to the quantity of the active agent present. Only during the last few years has the chemically standardized P. P. D. tuberculin of Seibert been available, and in all the cases reported by Branch, old tuberculin was used, so that the tests were in our opinion of little significance.

The sources from which it seems to us most probable that man might become infected with avian tubercle bacilli are dust from poultry houses,[5] eggs,[6] and milk.[7] Ac-

cordingly, infection might occur by either the respiratory or the intestinal route.

Conclusions

We have reported this case since it is one of clinically atypical tuberculosis in which an interesting observation has been noted, namely, a reaction to avian tuberculin. In the light of present knowledge, this phenomenon cannot be explained. We suggest that the significance of the occurrence of an avian positive, mammalian negative reaction in man should be studied, and that further consideration should be given to the possibility of infection with acid-fast microorganisms other than the human and bovine varieties of tubercle bacillus.

REFERENCES

1. McCarter, Janet; Beach, B. A.; and Hastings, E. G.: The Relation of the Avian Tubercle Bacillus to Tuberculosis in Swine and Incidentally in Cattle. J. Am. Vet. M.A., 86:168–175 (Feb.) 1935.
2. McCarter, Janet and Hastings, E. G.—Unpublished.
3. Seibert, Florence B.: The Isolation and Properties of the Purified Protein Derivative of Tuberculin. Am. Rev. Tuberc., Supplement, 30:713–720 (Dec.) 1934.
4. Branch, Arnold: Avian Tubercle Bacillus Infection, with Special Reference to Mammals and to Man. Arch. Path., 12:253–274 (Aug.) 1931.
5. Schalk, A. F.; Roderick, Lee M.; Foust, H. L.; and Harshfield, G. S.: Avian Tuberculosis, Collected Studies. Tech. Bull. 279, Ag. Exp. Sta. N. Dak. Agr. Coll., (Jan.) 1935.
6. Stafseth, H. J.; Biggar, R. J.; Thompson, W. W.; and Neu, Lisa: The Cultivation and Egg Transmission of the Avian Tubercle Bacillus. J. Am. Vet. M.A., 85:342–359 (Sept.) 1934.
7. Wolters, K. L., and Dehmel, H.: Ueber das Vorkommen von Geflügeltuberkelbakterien beim Rind und ihre Differenzierung. Ztschr. f. Infektionskr., 41:71–79 (March) 1935.

Molluscum Contagiosum; Report on a Series of Seven Cases

By LLEWELLYN R. COLE, M. D.

Director, Department of Student Health, University of Wisconsin, Madison

THE condition of molluscum contagiosum has been thoroughly and extensively studied by dermatologists and histopathologists. Much has been written about the disease, the causes and the etiology, the diagnosis and the treatment, but the diagnosis is infrequently made outside of the office of the dermatologist although not a difficult disease to diagnose and treat.

It has been established that the disease is contagious and autoinfectious, and it has been artificially produced by a number of workers. There has been wide search for the causative agent, and it has been conclusively shown by experimental study that the disease can be transmitted by inoculation of the contents of a typical lesion into the skin. Wile and Kingery[1] presented an excellent piece of experimental research in 1919 and in their conclusions stated that they felt that the disease of molluscum contagiosum was caused by a filterable virus, and no subsequent study has changed this assertion by establishing any other microorganism as the causative agent.

Schamberg[2] says it is not a common disease and is usually seen in children. Others report epidemics in institutions, and still others report the condition as seen among adults in gymnasiums and under circumstances where a common towel is in use.

I wish to report seven cases seen among students at the University of Wisconsin in the department of student health. Not one of these students had been in contact with another in the group so afflicted, and they all came from widely separated parts of the country.

The condition is described as occurring typically among children of the poorer classes where bodily cleanliness is lacking. The lesions are very characteristic and when once seen are easily recognized again. They are papular, discrete, from pinhead to pea sized, waxy in appearance, and pink to white in color.[3] There is a central depression, usually darker than the surrounding lesion, and not infrequently caseous material may be expressed through it. This caseous mass is sometimes called the inclusion material and contains the molluscum bodies which may be noted under the microscope. These molluscum bodies are made up of degenerated epithelial cells. The lesions may be located upon almost any part of the body, but the face, arms, and genital regions are the

sites of predilection, though the neck, trunk and other regions are not infrequently involved, says Ormsby.[3] Sutton[4] describes the lesions as small, globular, waxy epithelial tumors, and a name frequently applied is molluscum epitheliale or epithelioma molluscum. The incubation period is said to be from two to ten weeks, but this varies widely. The condition is often confused with multiple verrucae, fibromata, comedones or milia, but careful observation should leave no doubt as to the correct diagnosis. The waxy, smooth appearance of the lesion, the central depression, the inclusion material, and the typical appearance of the molluscum bodies and structure of the lesion under the microscope should easily establish the proper diagnosis.

Case Reports

Case 1. E. L., a tweny-year-old white male, noted a "mole" on the upper outer quadrant of his left breast six months prior to the time he sought medical advice for the condition. Later there appeared similar growths on the right side of the trunk, and there were eight to ten lesions on the neck. The lesions were discrete, split-pea sized, waxy growths. A clinical diagnosis of molluscum contagiosum was made on the appearance of the lesions, and this was confirmed by biopsy in the department of dermatology. The lesions were destroyed by desiccation.

Case 2. R. B., a white male of twenty years, noted an eruption of small "nodules," as he called them, on the anterior chest wall over the sternum. The lesions were papular, smooth, pink in color, waxy, and showed the central depression characteristic of the condition. They were limited to the trunk, slowly spreading and gradually increasing in size. In this case there was a lapse of at least two months between the appearance of the original lesions and the final diagnosis and treatment. Here again the lesions were destroyed by fulguration.

Case 3. E. H., a white male of eighteen years, noted a small growth in the right axilla but thought nothing of it. This was more than a year before seeking medical attention for his condition. The lesions gradually appeared on the abdomen, chest, and back, and as the age of the lesion increased so did its size, until there were all sizes of growths. When seen in the department of student health there was a wide distribution of lesions over the back, chest, axillae, arms and neck (fig. 1).

This patient was a wrestler and had caused a spontaneous cure of some of the lesions on his elbows and arms by rubbing them off on the wrestling mat. They were painless, waxy papules, white to pink in color with a central depression containing the typical cheesy inclusion material, and varied in size from a pinhead to a small pea. A clinical diagnosis of molluscum contagiosum was made and this

Fig. 1. Molluscum contagiosum.

was confirmed by biopsy. The lesions were destroyed by incision, evacuation of the contents, and local treatment of the remaining cavities with tincture of iodine.

Case 4. R. H. was a twenty-year-old white male who first noted a solitary lesion, somewhat wart-like in character, on the medial aspect of his right thigh. At times he said that he was able to squeeze some "worm-like" material from the tumor. In due course of time it became infected and he sought medical aid. When seen there was a surrounding area of cellulitis. The tumor was removed and the biopsy showed it to be molluscum contagiosum. This was a single lesion and no others could be found after careful search. The lesion had been present for about a year before he was seen by us.

Case 5. V. R., a white female of twenty-one years, noted several lesions on face and forehead from pinhead to pea-sized papules, about seven to eight in number, of several weeks' duration. She consulted a physician in our clinic who made a diagnosis of molluscum contagiosum on the character of lesions; waxy, smooth, pink-white with central indentation in some of the growths. Diagnosis was confirmed by biopsy, and lesions were destroyed by desiccation. Previously the eruptions were treated as lesions of acne vulgaris.

Case 6. R. H., a white male of nineteen years. In April of 1936 he noted "pimples," located in the perineal region and on the medial aspects of the upper portions of both thighs. He had a single lesion in the popliteal space of the left knee. He stated that the lesions gradually grew in size, would spontaneously open up after trauma and bleed, then heal. Lesions were very characteristic clinically in September, 1936, but when the patient returned for observation in January, 1937, he had caused a spontaneous cure of all of the lesions by digging them out or otherwise traumatizing them. No biopsy was done.

Case 7. K. B., a white male, twenty-four years old. In May, 1936, four small lesions clinically diagnosed as molluscum contagiosum were noted on ventral aspect of left forearm. One lesion was present on left knee. He stated that these had been present for four months. Lesions were described as discrete, pink, waxy in appearance, and all about the size of a split pea. The older lesions had a flat top with central discoloration from which cheesy material could be expressed. They were excised and $AgNO_3$ applied. Biopsy confirmed the diagnosis of molluscum contagiosum. He had engaged in intramural athletics.

Treatment

The treatment consists of destruction of the lesions, and this may be accomplished by any one of a number of methods. They may be desiccated or incised. In the event of incision, the contents are evacuated and the cavity is treated with trichloracetic acid or tincture of iodine. The standard textbooks give several methods of treatment, but I have found the simplest way is to incise the lesion, evacuate the caseous material with a curette, and follow with local application of tincture of iodine to the cavity. This is done under aseptic conditions. The bleeding is easily stopped and most of the lesions will need no dressing. If all of the tumor masses are not destroyed there may be a recurrence of the condition. MacKee[5] notes the use of the x-ray in the treatment of the condition. Ormsby,[3] Schamberg,[7] Sutton,[4] and Ahlswede[8] mention other methods.

Fig. 2. Photomicrograph of single lesion of molluscum contagiosum showing typical structure and encapsulation of caseous material. Characteristic lobulation of lesion. Magnification 80 diameters.

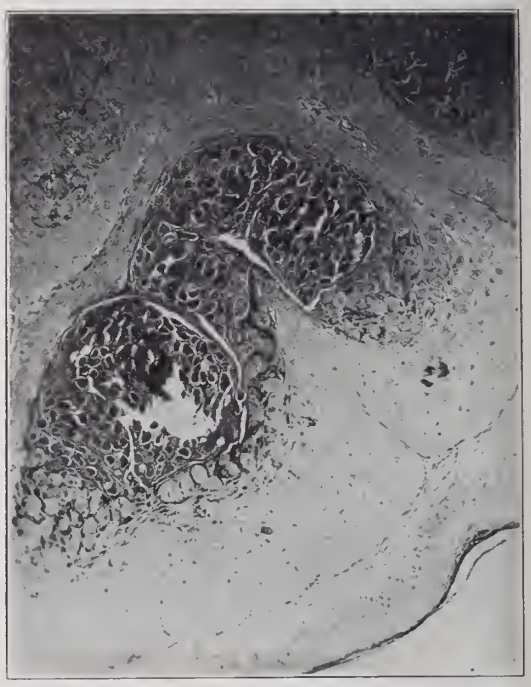


Fig. 3. Photomicrograph of single lesion of molluscum contagiosum magnified 200 times, showing cellular detail and central cell degeneration.

This brief discussion has been given to better acquaint the practicing physician with a condition, which, while uncommon, does occur in all classes of individuals. The diagnosis and treatment are simple and require no other apparatus than that which all physicians have at hand.

BIBLIOGRAPHY

1. Wile, U. J., and Kingery, L. B.: The Etiology of Molluscum Contagiosum Preliminary Report of Experimental Study. J. Cutan. Dis., No. 7, 37: 431–446 (July) 1919.
2. Schamberg, J. F.: Compendium of Diseases of the Skin, seventh edition, Philadelphia: P. Blakiston's Son and Co., pp. 183–186.
3. Ormsby, O. S.: Diseases of the Skin, third edition. Philadelphia: Lea and Febiger, 1927, pp. 639–644.
4. Sutton, R. L.: Diseases of the Skin, eighth edition, St. Louis: The C. V. Mosby Co., 1931, pp. 631–637.
5. MacKee, G. M.: X-Rays in the Treatment of Diseases of the Skin, second edition, Philadelphia: Lea and Febiger, 1927, p. 716.
6. Stelwagon, H. W., and Gaskill, H. K.: Diseases of the Skin, ninth edition, Philadelphia: W. B. Saunders Co., 1923, pp. 673–680.
7. Schamberg, J. F.: Diseases of the Skin and the Eruptive Fevers, fourth edition, Philadelphia: W. B. Saunders Co., 1921, pp. 248–250.
8. Ahlswede, E.: Practical Treatment of Skin Diseases, New York: Paul B. Hoeber, Inc., 1932, p. 467.

The Wisconsin Venereal Disease Program

By H. M. GUILFORD, M. D.

Director, Communicable Disease Division, State Board of Health, Madison

CASUAL efforts to combat syphilis date back many years. Some restrictive measures were recommended as long ago as the severe and widespread invasion of that disease in Europe in the 15th and 16th centuries. It has remained for the present century to demonstrate that control measures may be of value. The success of the Scandinavian countries and England in bringing about a marked decline in the prevalence of syphilis has focused attention on the methods pursued there.

In England there is an extended dispensary system, with easily procurable treatment for those afflicted and no requirements upon reporting cases. This system has been in existence for nearly thirty years, and a marked decline in syphilis and a lesser decline in gonorrhea are now recorded. In the Scandinavian countries the methods pursued are not unlike those which have been in practice in Wisconsin during the last eighteen years.

In Wisconsin, the State Board of Health introduced the first measure dealing with venereal disease. This required the use of nitrate of silver in the eyes of the new-born to prevent ophthalmia. It was placed on the statutes in 1909 and was modified in 1913 to empower the State Board of Health to distribute ampules of nitrate of silver to physicians and midwives, free of charge. The present eugenics marriage law was also enacted in 1913 and amended in 1915. More than twenty years ago the State Laboratory of Hygiene made gratuitous examinations of G. C. specimens, and the State Psychiatric Institute, at Madison, made Wassermann tests, free of charge, to physicians. The physicians of but few states in the Union have possessed this advantage in diagnosis over so long a period.

Following the close of the World War, agencies of the Federal Government directed federal attention to the prevalence of venereal disease in much the same manner that the U. S. Public Health Service is doing today. Congress then passed the Chamberlain–Kahn Act, allotting a sum of money to be divided among the various states, to be devoted to venereal disease work. The Wisconsin State Board of Health received its allotment, which the legislature matched with an equal sum. The present Wisconsin venereal disease law and the venereal disease regulations of the State Board of Health were enacted at that time (1919). In the immediately following years, the federal funds progressively waned and finally disappeared, and, with their disappearance, it is quite evident that the venereal disease program of many states lapsed accordingly. In Wisconsin, however, the legislature has continued to make appropriations, and for the last eighteen years the Wisconsin program has been kept alive as originally established. Many people do not know the entire particulars of the work that has been done. The purpose of this article is to elucidate the venereal disease law and regulations of Wisconsin and the progress that has been made.

Reporting

The principal requirements of the Wisconsin statutes and the regulations of the State Board of Health upon reporting are:

1. Gonorrhea, syphilis, and chancroid, in the communicable form, shall be reported by the physician in charge of the case. The superintendent of an institution is also under legal obligation to report.

2. Reports shall be made on blanks furnished by the State Board of Health, each of which bears a serial number and a place for the name of the disease, the age, sex and conjugal condition, and the signature of the physician.

3. The name of the patient is not required. If the patient, however, is delinquent in treatment while in the communicable stage, the name and address shall then be reported.

4. All reports shall be directly to the State Board of Health and not to local health officers. Such reports shall not be open to public inspection.

In explanation of these requirements it will be noted that only communicable forms of venereal disease are to be reported. This means all cases of chancre and practically all cases of gonorrhea prior to negative tests. There may be some question in the mind of the physician as to what is to be considered as communicable syphilis. The regulations of the State Board of Health, passed in 1919, stated that syphilis is to be considered communicable until all sores, rashes and open lesions are healed. It is now well-known that the arsenicals in common use usually promptly heal such lesions, and, judged by this definition, communicability is of very short duration in those under treatment. It is also common knowledge that clinical relapse with open lesions is not infrequent in those who have received only a few injections of arsenicals and have stopped treatment. There should be some changes in the regulations extending the definition of communicability to cover the earlier cases, and such changes have recently been proposed for enactment. Some physicians, recognizing the intent of the law, have reported early cases not then having open lesions and it has been preferable that the physician does so.

It is of interest to note that the federal records show that forty-six states in the Union now require reports on venereal disease. In forty-five of these states, reports on syphilis are made without reference to communicability. Wisconsin is the lone state requiring reports only of communicable forms. In many states reports are made directly to the local health officer, who, in turn, reports summaries to the State Board of Health in the same manner as other communicable diseases are reported.

A query may arise as to the value of these reports other than those on delinquents and whether such value is sufficient to justify the time involved on the part of the physician in making them. In all communicable diseases some governmental bookkeeping is necessary. Outside of the communicable diseases, information usually rests on mortality statistics. This accumulation of reports serves to contrast present conditions with the past. Regional prevalences are discovered. When sex, age, conjugal condition and other factors are recorded, the analytical studies help in the formation of public health procedures. In the state of Wisconsin analytical records have been made annually from the report blanks of each of the venereal diseases. These records are published in the biennial reports of the State Board of Health.

Delinquents

Any person with venereal disease in the communicable form is declared by law to be a potential menace to others. Promiscuous persons so involved markedly help to keep alive these infections. An early syphilitic, with open lesions, is as capable of working as much ultimate harm as may occur in the wake of a case of diphtheria. The proper follow-up of such persons is of high interest to the public health. A section of the report blank sent to physicians is intended for the reporting of the communicable delinquents in treatment.

It has never been the intent of the State Health Department to interfere in any way with the confidential relations existing between physician and patient as long as the patient is under treatment and following the directions of the physician. The State

Health Department is, however, desirous of obtaining the names and addresses of persons declared to be sources of infection and solicits such information from physicians. Recently developing cases are very likely to have knowledge of the source, and such information is of public health value. The regulations of the State Board of Health give legal backing to the physician in reporting such sources.

The method of handling delinquent reports and reports upon sources is as follows: Action is taken under the law empowering an agent of the State Board of Health to investigate any reasonably suspected case of venereal disease for which no treatment is given by a physician licensed to prescribe drugs. In some of the larger cities the reports are referred to the venereal disease clinic nurses employed by the State Board of Health. By an enabling act, a physician health officer may also investigate in any specific case referred to him by the state health officer, and in many instances reports are referred to such health officer. Throughout the greater part of Wisconsin, however, delinquent reports are turned over to the various deputy state health officers. Every part of the State, both rural and urban, is thus reached by these arrangements. Laymen frequently interest themselves in real or fancied venereal disease situations, and where reports appear to have actual basis and are within the scope of the legal functions of the State Board of Health, investigations are accordingly made.

Success in getting delinquents back under treatment has been remarkably good. If the delinquent can be located, he generally complies with the demands of the law. If he is indigent, local arrangements are often made with the relief bodies for obtaining the necessary treatment.

Institutionalization

Under the Wisconsin statutes an officer of the State Board of Health is entitled to bring a person with communicable venereal disease, who neglects or refuses treatment, into court. Upon due evidence such person may then be committed to an institution for treatment. Through cooperation with the State Board of Control most committed individuals have been sent to one of the institutions under charge of that body. A great majority have either reached Mendota State Hospital or the Wisconsin Industrial Home for Women at Taycheedah. It is quite the usual proceeding for negligent persons to willingly accept treatment when faced with a court proceeding, and local arrangements are then made for treatment with a physician. The law is primarily intended for unmanageable persons who are a public menace, but situations arise in which continuity of treatment and reliability of the patient are factors in getting a person into an institution in the interest of the common welfare. Every year a number of persons of both sexes have been committed to institutions since the law went into effect in 1919. The presence of this law on the statutes has been of signal aid in getting delinquent cases under local treatment.

Clinics and Clinic Nurses

At the time the venereal disease program was originated cooperative arrangements were made between the State and a number of cities in Wisconsin for the establishment of venereal disease clinics. Most of the practitioners, who have had charge of these clinics, have specialized along the line of this work outside of clinic activities and have given excellent services to the clinic patrons. Stated hours are set apart, each week, for their treatment. Clinic services are in existence in Beloit, Janesville, Kenosha, La Crosse, Madison, Oshkosh, Racine, Superior, and Wausau.

The object of establishing these clinics is to provide treatment facilities for those who cannot afford the services of a physician, among whom is likely to be included that class of dissolutes who are promiscuous in their habits. These clinics provide a place for physicians to send patients not wanted in their offices.

With the establishment of the clinics the State Board of Health employed seven clinic nurses. The functions of these nurses is to assist the physician in the clinic, inquire into the financial status of the patient, visit courts and jails for the discovery of cases

and, to follow up delinquents in treatment. The services of these clinic nurses have been offered to local physicians for follow-up of their patients. As the clinics treat all forms of syphilis the follow-up work is extended to the noncommunicable cases also. The constancy of attendance at clinics often depends on the follow-up work of these nurses. Cities served by these state clinic nurses are Beloit, Janesville, Kenosha, La Crosse, Madison, Milwaukee, Oshkosh, Racine, and Superior. In general these nurses are stationed in the health department. In two instances one nurse serves two adjacent cities. A tabulation summarizing the number of cases entering the clinics and the number of treatments given is herein appended (table 1).

TABLE 1. SHOWING NUMBER OF NEW CASES ADMITTED TO CLINIC FOR TREATMENT AND OLD CASES UNDER OBSERVATION FOR YEAR 1935

Month	*Gonorrhea*		*Syphilis*		*Visits for advice and treatment*	*Number of treatments*
	New cases under treatment	*Old cases under observation*	*New cases under treatment*	*Old cases under observation*		
January	49	2,042	41	3,361	2,505	5,295
February	41	2,069	36	3,387	2,378	3,402
March	47	2,078	52	3,358	2,352	5,437
April	42	2,078	65	3,390	2,417	5,548
May	38	2,095	42	3,287	2,413	5,530
June	40	2,112	31	3,175	2,183	5,318
July	29	2,116	46	3,192	2,034	5,285
August	36	2,086	44	3,227	2,128	5,093
September	48	2,085	36	2,336	2,366	3,929
October	37	2,106	42	3,264	2,065	5,385
November	39	2,131	49	2,391	2,211	5,212
December	30	2,118	36	2,400	2,064	4,838
Total	476		520		27,116	60,272

Drugs

Many physicians have been willing to treat certain indigent cases of syphilis in their offices provided they are at no expense for drugs. In the encouragement of treatment of this class of cases, the State Board of Health has kept on hand arsenicals, bismuths and mercurials for free distribution to physicians. Upon application of the physician, stating he has an indigent case, drugs are sent out. Up to the present, the fund with which to purchase these drugs has not been great. The department will continue to supply drugs to the extent of the financial allotment allowed. Table 2 illustrates the progressively increased demand for drugs from the State Board of Health.

Educational

After the close of the World War there was a demand for lecturers on venereal disease. Lecturers were employed to visit varied male and female groups. At that time a system of instructional social hygiene was established which dwelt upon the danger of venereal disease. It has been found by questionnaires that a large part of young people receive no instruction upon sex hygiene at home and there is abundant opportunity to obtain such information from other young people, the character of which might be commented on. It requires a skilled personnel to reach these young people in a way not open to objection. The present lecturers,

TABLE 2

Year	*Ampules distributed*
1924	5,311
1925	6,226
1926	7,951
1927	6,979
1928	8,241
1929	7,654
1930	9,055
1931	13,609
1932	21,304
1933	27,847
1934	35,285
1935	34,096
1936	40,015

one man and one woman, have now had years of experience and the demand is such from the schools throughout the State that the round of the State can only be accomplished once in three years. Besides the schools, various summer camps, vocational schools and industrial camps have been visited. The number of boys and girls reached by these lecturers in 1936 was 42,397. To supply the considerable demand for pamphlets on sex hygiene, the State Board of Health has kept on hand a series of pamphlets. The number of pamphlets sent out upon request in 1936 was 56,598. A small library of books on social hygiene is kept by the State Board of Health for loan to individuals by these lecturers.

Progress

The state of Wisconsin has apparently never had a high comparative prevalence of venereal disease. Among a million men of the draft in the World War there were 5.6 per cent venereally infected on admission, discoverable by such means as were taken in the draft. The admission rate for the Wisconsin contingent was about 2 per cent. A large part of this was gonorrhea. The percentage of syphilitic disease varies greatly the world over in different population groups and status in life. Wassermann testing among negroes in America has shown that race to be well infected. In Wisconsin, the negro population totals only about 11,000. Despite rumors to the contrary, the Indian population, which totals about the same, is not markedly involved. The rural population of Wisconsin, as gauged by reports, does not appear to be much infected. For obvious reasons venereal disease is more likely to originate in and around urban centers.

In 1922, when the venereal disease law was well under operation, the number of cases of gonorrhea reported to the State Health Department was 2,510 and the number of communicable forms of syphilis was 527. In 1936, the number of gonorrhea cases reported was 1,672 and the number of communicable forms of syphilis was 286. The argument is likely to be brought forward that many cases are not reported and that a drop in reports is only an indication of waning interest on the part of the medical profession. However, the number of physicians reporting to the State Board of Health in 1922 was 545 and the number reporting in 1936 was 636. In other words, a greater cross section of the physicians of Wisconsin reported fewer cases, which infers a declining intensity of venereal disease in the general population.

In studying the trend of the syphilitic mortality in Wisconsin a disconcerting factor is found in the mortality statistics. It is a notorious fact that few of the deaths actually due to syphilitic complications are ever revealed on death certificates. The increase in postmortem examinations of late years, and greater use of blood tests in diagnosis is likely to add greater perfection to death certificates. In certain specific forms of syphilis in which the diagnosis cannot well be avoided the mortality is declining. The following is the Wisconsin mortality record upon paresis:

1920	123	1928	57
1921	98	1929	78
1922	97	1930	78
1923	108	1931	72
1924	90	1932	75
1925	73	1933	61
1926	108	1934	60
1927	53	1935	61

The death rate from locomotor ataxia shows some downward trend, although not as pronounced as in paresis, and the deaths from congenital syphilis are quite markedly declining.

Twenty-five years ago, prior to the perfection of blood tests and the use of arsphenamines, syphilis was only known by its clinical symptoms. The medical schools and dispensaries demonstrated syphilitic chancres, rashes and gummas in abundance. By contrast the largest picture of the venereal disease clinic situation of today is Wassermann positive cases, with little or no manifest symptomatology. Undoubtedly, many syphilitics are now being treated who would not have been diagnosed three decades ago. The

(Continued on page 494)

THE WISCONSIN MEDICAL JOURNAL

The Editorial Board

GEORGE H. EWELL, Madison F. GREGORY CONNELL, Oshkosh S. J. SEEGER, Milwaukee

Editorial Staff

GEORGE H. EWELL, Madison, Acting Medical Editor MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

A. W. ROGERS_____Oconomowoc
FRANK W. POPE_____Racine
JOSEPH DEAN_____Madison
W. CUNNINGHAM_____Platteville
A. H. HEIDNER_____West Bend
S. E. GAVIN_____Fond du Lac
H. A. JEGI_____Galesville
G. R. DUER_____Marinette
J. W. LAMBERT_____Antigo
JOSEPH F. SMITH_____Wausau
F. E. BUTLER_____Menomonie
F. G. JOHNSON_____Iron River
JOS. LETTENBERGER_Milwaukee

Annual Subscription_____Three Dollars-Fifty Cents Single Copies_____Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI JUNE, 1937 Number 6

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

Sulfanilamide

SULFANILAMIDE is the Council's accepted name for para-aminobenzene-sulfonamide, the introduction of which, in the therapy of various pathologic processes due to an infection with the Streptococcus hemolyticus, is one of the outstanding developments in the field of chemotherapy and the whole field of medicine during the past two years.

The use of this drug has been publicised in the lay press,—once when used in the treatment of a nasal accessory sinus infection and just recently a reference to its use in the treatment of gonorrhea appeared in a lay magazine. It is to be hoped that these articles will not result in the indiscriminate use of the drug.

In the field of chemotherapy the introduction of new drugs practically always follows extensive laboratory experiments, which is true in this case. Domagk[1] and his coworkers noted that certain azo dyestuffs, derivatives of para-amino-benzene-sulfonamide, exercised a protective action on mice inoculated with lethal doses of hemolytic streptococci. Several workers confirmed their findings. Tréfouël[2] and his associates demonstrated that the nucleus of these azo dyestuffs, para-amino-benzene-sulfonamide, was the essential part of the drug. They employed it experimentally in the treatment of hemolytic streptococcic infections in mice and rabbits.

Other investigators have confirmed these experimental findings. Long and Bliss noted a marked reduction in growth of certain types of streptococci and other organisms after various concentrations of sulfanilamide were added to broth cultures of these organisms.

Enough clinical material has been accumulated to show that sulfanilamide is indicated and of decided therapeutic value in the treatment of any disease where the infection is due to a hemolytic streptococcus. Long and Bliss[3] obtained good results in the treatment of infected traumatic wounds, erysipelas, infected abortion, acute tonsillitis, septicemia, and scarlet fever. These authors state that forty-eight hours is required before the maximum therapeutic effect is obtained after administering the sulfanilamide so that if a hemolytic streptococcus infection is suspected the drug should be given immediately.

Use of the drug is indicated in the treatment of cases of cellulitis, puerperal fever,

NINETY-SIXTH ANNIVERSARY MEETING
Milwaukee Auditorium, Milwaukee :-: September 15, 16, 17, 1937

complications of scarlet fever such as otitis media and mastoiditis, influenza, nasal accessory sinus infections and septic sore throats.

Favorable reports on its use in the treatment of Type III pneumonia have been reported. The writer knows of two instances of streptococcic pneumonia in which the drug undoubtedly exerted a very pronounced beneficial effect. Very recent work, both experimental and clinical, reports favorable results in the treatment of certain types of urinary tract infections.

One important factor which prompts our employment of the drug is the ease of administration. Early in the work, various preparations were given by subcutaneous and intravenous injection and in the case reported by Arnold[4] some was given intraspinally.

It is now generally conceded that sulfanilamide is best given orally, and, apparently, no greater therapeutic effect can be obtained when it is given any other way. It is rapidly absorbed from the gastro-intestinal tract and distributed widely in the body tissues. A sufficient concentration can thus be obtained by giving an adequate dosage to produce a maximum concentration in the tissues and maintaining this concentration by smaller subsequent doses.

Compared to other drugs, the toxicity as shown by studies on laboratory animals is very low and there is an ample margin of safety between the toxic dose and the therapeutic dose. Generally speaking, it is well borne by patients.

In the presence of a known hemolytic streptococcus infection, an immediate dose of sixty (60) to ninety (90) grains of the drug is given at one time, followed by fifteen (15) grains every four (4) hours, depending on the severity of the infection and the patient's reaction to the drug. After the first two or three days the dose is reduced to five (5) or ten (10) grains every four (4) hours and continued during the course of the infection unless signs of intolerance supervene.

Long and Bliss noted at times some nausea with ringing in the ears and slight dizziness following the first doses of the drug. Large doses were followed sometimes by temperature which rapidly subsided following discontinuance of the drug. Also, following large doses, slight cyanosis and rapid respirations were noted which, they felt, were due to the development of an acidosis; other reactions were noted but apparently none was serious.

Unlike most of the drugs introduced, especially of the dye derivatives, the drug is comparatively inexpensive and several preparations are available.—G. H. E.

REFERENCES

1. Domagk, G.: Deutsche Med. Wchnschr., **61**:250 (Feb.) 1935.
2. Tréfouël, J., et al.: Compt. rend. Soc., Biol. **120**:756 1935.
3. Long, P. H., and Bliss, E. A.: J.A.M.A., **108**:32–37 (Jan.) 1937. Also, Arch. Surg., **34**:351 (Feb.) 1937.
4. Arnold, J. G.: Ann. Int. Med., **10**:1198 (Feb.) 1937.

"Oscillate to Extremes"

"The danger in transition periods lies in the tendency of the human mind to oscillate to extremes. Tired with familiar exercises and results, captivated by novelties, intoxicated by the inspirations of hope, we rush forward to positions which sober experience proves to be untenable, and, in disheartening retreat, lose spirit and courage, as well as the actual fruits we might have secured by more patient and conservative labor. The great problem, at such times, should be the fusion or amalgamation of the great elements of all existence, stability and progress—the great desideratum, fidelity to our inheritances from the past, and a cordial welcome to the invitations of the future."

H. P. Strong, M.D., President's Address, State Medical Society of Wisconsin, 1871.

. . . . THE PRESIDENT'S PAGE . . . .

IN THE earliest days of the history of medicine, medical thought turned toward organization as the orderly procedure for service in the public good. Possibly one of the first efforts that was made to form any medical organization was as early as 370 B.C. when a group of students of Hipprocrates organized for the purpose of perpetuating and promulgating his teachings.

For a long period of time medical organization, realizing that all medical progress rested upon research, discovery, and distribution of knowledge, had as its objective the accomplishment of those purposes. In more recent years, and particularly in this country, medical organization concerned itself for a considerable period of time with the subject of improving medical education. Outstanding efforts in the field of advancing the standards of medical schools and improving the caliber of the men admitted to the study of medicine are now to the credit of medical organization.

Medical organization has always concerned itself with, and has been instrumental in bringing about, all improvements and advances in the care of the sick and improvement of the public health. Outstanding accomplishments in the field of the public health may be traced directly to the doorstep of the organization of medicine, such as the creation of the State Board of Health in our own State.

More recently medical organization has been deeply concerned with economic problems of joint concern to society as a whole and the welfare of the membership. It is to be noted, however, that the only excuse for the existence of any organization has been that through that organization some benefit might accrue to society.

In the framing of a position of an organization on a pending question of importance, it is to the very great credit of our own Society that while the Council has attempted to discharge its full functions as an interim and executive board, it has ever referred to the delegate body every major question for the decision of that body. One is impressed with this increasingly as he reads of the transactions of former meetings. The recent special session of our House of Delegates was a notable example of the great care that is taken to bring to public questions the considered opinions, not of the few, but of the most representative body of the physicians of this State. In this special session, for instance, upwards of two hours and a half were devoted to a presentation by proponents of pending legislation,—a presentation made, in this instance, by a group, none of whom were physicians. And it was not until this presentation had been made that our Delegates heard the bills analyzed from the viewpoint of the rendition of medical service and thereafter every opportunity was given for discussion from the floor.

All this is highly proper. Controversial questions should be thoroughly discussed. Opinions of the most representative group of the organization should be voiced so that when a principle, a policy, or an objective is finally arrived upon or determined, it can be said with truth that the organization is speaking for the considered opinion of its entire membership.

Nothing has been more harmful to organizations in other fields than to witness the organization voicing its position and then to see prominent members, who failed to in any way participate in the opportunity to frame the organization's position, suddenly voice radically different views. This presents the appearance of a crumbling wall.

There must never be any attempt made to regiment the views of the membership of any organization. Nor should there be a desire to curb or bridle any member in his inalienable right to his own opinion and to his unquestioned privilege of freedom of expression. Members owe it to their organization, however, first to express their opinions through the medium of the organization at the time policies are being framed, and organizations owe it to their membership to provide in every possible way for the widest expression of the membership before framing policies.

Both obligations have been discharged by our Society in the past and in particular with reference to the special meeting of the House of Delegates. Such an organization not only merits the public confidence, but deserves and obtains the utmost support of a richly participating membership.

S. E. Gavin

Society Proceedings

Brown-Kewaunee-Door

Dr. J. C. Sargent, president-elect of the State Medical Society of Wisconsin, was the principal speaker at the meeting of the Brown–Kewaunee–Door County Medical Society at the Northland Hotel, Green Bay, on May 20. His subject was medical economics in our State, and following his talk and the discussion there were reports from the Fee Schedule Committee and the Public Relations and Grievance Committees.

Columbia-Marquette-Adams

Members of the Columbia–Marquette–Adams County Medical Society entertained Sauk county physicians at a banquet in Portage at the Raulf Hotel, Friday, April 30. Dr. W. D. Stovall of the University of Wisconsin was speaker of the evening.

Eau Claire-Dunn-Pepin

Dr. J. A. Bargen, of the Mayo Clinic, presented a paper, "Differential Diagnosis and Management of Conditions Causing Intestinal Obstruction," and Dr. B. R. Kirklin, also of the Mayo Clinic, presented a paper, "The Value of X-Ray in Diagnosis of Pulmonary Lesions," at the dinner meeting of the Eau Claire–Dunn–Pepin County Medical Society held at the Eau Claire Hotel, Monday evening, April 26.

At the May meeting at the Menomonie Country Club, Dr. J. C. Sargent, president-elect of the State Medical Society of Wisconsin, spoke on "Medical Social Problems of Wisconsin."

Fond du Lac

Dr. W. S. Middleton, dean of the Medical School of the University of Wisconsin, was the principal speaker at the dinner meeting of the Fond du Lac County Medical Society, April 15, at the Retlaw Hotel, Fond du Lac. He discussed circulatory accidents encountered in surgery.

Milwaukee

The last monthly meeting until fall of the Medical Society of Milwaukee County was held at the Marquette High School Auditorium on May 14 at 8:15 p. m. The following program by the Milwaukee Professional Men's Orchestra was a special feature of the meeting:

Cortege du Sardare—Ippolitow–Iwanow, from "Caucasian Sketches"
Symphony (No. 4, A Major) "Italian"—Mendelssohn, Andante con moto Salterello
Waltzes from "The Gypsy Baron"—Strauss
Symphony (No. 4) Finale—Tschaikowsky

Dr. H. K. B. Allebach, of Milwaukee, discussed "Urinalysis as a Diagnostic Aid," and Dr. Dwight L. Wilbur, of the Mayo Clinic, presented a paper on "The Recognition and Treatment of Vitamin Deficiency States."

Oconto

Physicians from Green Bay, Marinette, and Shawano were invited to attend the meeting of the Oconto County Medical Society on May 14 at the Alamo Club, Stiles. Dr. A. C. Washburne gave a talk on "Psychoneurosis," and there was a discussion of proposed legislation.

Outagamie

A special meeting of the Outagamie County Medical Society was held on Monday evening, May 10, for the purpose of discussing legislation affecting delivery of medical service. The meeting was held in the Appleton Eye, Ear, Nose & Throat Clinic.

Rock

A dinner meeting of the Rock County Medical Society at the Hotel Hilton, Beloit, on April 27 was well attended. Dr. Rudolph Roethke, Milwaukee, and Dr. W. E. Edwards, Madison, a member of the State Board of Health, were speakers.

Shawano

A dinner meeting of the Shawano County Medical Society was held at the Murdock Hotel, Shawano, Wednesday evening, April 28. Dr. A. A. Cantwell gave a report on the recent meeting of the House of Delegates of the State Medical Society of Wisconsin.

Sheboygan

At its regular monthly meeting on April 27 at the Sheboygan Memorial Hospital, the Sheboygan County Medical Society had as speakers, Dr. Gorton Ritchie, Dr. W. S. Middleton, and Dr. Chester Kurtz, who gave an interesting and instructive symposium on coronary disease.

New members admitted to the society were Dr. C. C. Gascoigne, of Kohler, and Dr. J. W. McRoberts, of Sheboygan.

Trempealeau-Jackson-Buffalo

A meeting of the Trempealeau–Jackson–Buffalo County Medical Society was held Thursday evening, May 6, at the Nelsestuen Cafe at Ettrick. Dr. R. R. Richards, of Blair, and Dr. C. O. Rogne, of Ettrick, were hosts. A history of the foundation of the medical profession and its legal aspects was presented by Mr. A. V. Peterson, attorney, of Blair.

District Meetings

During May Mr. J. G. Crownhart, secretary of the State Medical Society of Wisconsin, spoke at district meetings in Milwaukee, Eau Claire, Madison, and Appleton on pending legislation affecting the delivery of medical service. At each of these meetings members of the State Medical Society from all surrounding counties were invited to attend.

Fourth Councilor District

Seventy-five doctors of the Fourth Councilor District held their annual meeting at Lancaster, May 26. The program for the meeting was as follows: Dr. W. D. Stovall, of the State Laboratory of Hygiene, Madison, who presented a paper on "Biopsy in the Diagnosis of Early Cancer"; Dr. W. S. Middleton, Dean of the University of Wisconsin Medical School, whose subject was "Cardiac Decompensation"; Dr. G. B. Eusterman, Mayo Clinic, Rochester, who discussed "Dyspepsia and Hints on Diagnosis and Treatment"; and Dr. S. E. Gavin, president of the State Medical Society of Wisconsin, who talked on "Some Phases of Medical Society Activities." Dr. M. W. Randall, president of the Grant County Medical Society, presided at the afternoon meeting.

In accordance with the annual custom the visiting doctors and their wives were entertained by the Lancaster Kiwanis Club at a six-thirty dinner at the Wright Hotel.

Sixth Councilor District

The annual meeting of the Sixth Councilor District of the State Medical Society of Wisconsin was held at Appleton, May 25.

Reports of interesting cases were presented by Dr. Joseph Benton, Dr. V. F. Marshall, Dr. C. W. Neidhold, Dr. E. L. Bolton, Dr. E. F. Mielke, Dr. D. M. Gallaher, Dr. R. V. Landis, Dr. Guy W. Carlson, and Dr. E. F. McGrath, of Appleton, and Dr. Albert Leigh, Kaukauna.

Papers were given by the following:

Dr. J. Arnold Bargen, Mayo Clinic, Rochester, Minnesota:

Dr. R. H. Jagge, Cook County Hospital, Chicago, Illinois.

A banquet session closed the convention at the Conway Hotel in the evening.

Ninth Councilor District

The annual meeting of the Ninth Councilor District Medical Society was held in Stevens Point, Wednesday, May 5. A clinic was held at St. Michael's Hospital beginning at four o'clock when dermatologic and luetic cases were shown. Dinner was served at the Hotel Whiting at 6:30 o'clock.

In the evening a program dealing with the various aspects of lues was presented at the request of the Portage County Medical Society. Dr. R. L. McIntosh, of the University of Wisconsin, spoke on "The Treatment of Syphilis from a Dermatological Standpoint," and Dr. W. J. Bleckwenn, also of the University of Wisconsin, discussed "Neurosyphilis in General Practice."

Milwaukee Academy of Medicine

The monthly meeting of the Milwaukee Academy of Medicine was held at the Medical Arts Building on May 18. The program follows:

Case Presentation: "Banti's Disease"—C. E. Bellehumeur, M.D.

"Duodenal Diverticuli"—M. E. Gabor, M.D.

"The Treatment of Peptic Ulcer"—Ralph C. Brown, M.D., clinical professor of medicine, Rush Medical College.

Milwaukee Oto-Ophthalmic Society

The following program was presented at the meeting of the Milwaukee Oto-Ophthalmic Society following a 6:30 dinner at the University Club, Milwaukee, on May 11:

1. The O'Conner Cinch Operation in the Correction of Squint and Heterophoria,—Dr. F. Bruce Fralick, University of Michigan.
2. The Septic Patient with Otitis Media,—Dr. James H. Maxwell, University of Michigan.

Milwaukee Society of Clinical Surgery

After a dinner at 6:30 at the University Club, the following program was presented at the meeting of the Milwaukee Society of Clinical Surgery on May 25:

1. "Common Causes of Upper Respiratory Complications Frequently Overlooked"—Dr. Hugh Cunningham, anesthetist, Columbia Hospital, Milwaukeee. Discussion by Dr. W. J. Carson, Milwaukee.
2. "Bile Peritonitis"—Dr. Karl Schlaepfer, Milwaukee. Discussion by Dr. Louis Fuerstenau, Milwaukee.
3. "Factures of the Hip Joint"—Dr. William R. Cubbins, associate professor of surgery, Northwestern University, Chicago. Discussion by Dr. Herman Schumm, Milwaukee.

Wisconsin Urological Society

The semiannual meeting of the Wisconsin Urological Society was held in Kenosha on Saturday, April 24. Dr. H. E. Kasten, Beloit, was elected president to succeed Dr. Cyril Richards, of Kenosha. Dr. W. E. Bannen, La Crosse, was named vice president, and Dr. S. J. Silbar, Milwaukee, secretary and treasurer.

Doctor Kasten, who served this last year as vice president of the society, presented a paper on "Modern Advances in the Treatment of Urethral Infections." Dr. N. G. Alcock, professor of urology at the Iowa State University Medical School, was guest speaker.

The Woman's Auxiliary

President—
Mrs. C. A. Harper, 520 N. Pinekney St., Madison
President Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior

Hygeia Chairman—
Mrs. H. H. Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

County News Items

Dane

The Woman's Auxiliary to the Dane County Medical Society met for luncheon on Wednesday, May 12, at one o'clock with Mrs. W. C. Reineking, Lake View Sanatorium. The assisting hostesses were Mrs. H. M. Carter, Mrs. Lindley V. Sprague, and Mrs. Harold E. Marsh.

Dodge

Mrs. Hazel Barton was the guest speaker at the meeting of the Woman's Auxiliary to the Dodge County Medical Society held at the home of Mrs. R. R. Roberts on April 30 at Beaver Dam. She discussed the Dodge County Children's Protective Association, telling about the loan closet which has been established at the court house in Juneau. The equipment is available for use by any doctor in the county.

Kenosha

It is the custom of the Woman's Auxiliary to the Kenosha County Medical Society to sponsor a talk on some phase of health each year, and on May 5 at the Museum lecture hall, Kenosha, Dr. Franklin C. Bing, secretary of the Council on Foods of the American Medical Association, discussed "Recent Developments in Foods and Nutritions." He was introduced by Dr. Edgar F. Andre, of Kenosha.

Milwaukee

At its last regular meeting until fall, the members of the Woman's Auxiliary to the Medical Society of Milwaukee County entertained at a well-attended Maytime luncheon, with mothers as special guests, in the Crystal Ballroom, Schroeder Hotel, Friday, May 14. While the luncheon was in progress, summer fashions were displayed by attractive models, through the courtesy of Hixons, with auxiliary member, Mrs. Arno Fromm, at the piano.

Dr. Irving S. Cutter, dean of Northwestern University Medical School, Chicago, introduced by Dr. Stanley J. Seeger, of Milwaukee, gave a most instructive and entertaining talk on "The Physician in Literature," and it is of interest to note how many well-known physicians have been famous in the field of letters.

Mrs. Robert E. Fitzgerald, Milwaukee's own national president of the Woman's Auxiliary to the American Medical Association, spoke briefly concerning her work and experiences as national president and stressed one important function of the auxiliary,—to present authentic and correct health information to the public. She stated that the present membership in the Woman's Auxiliary is 16,000 and spoke of its place and the value of its work.

Milwaukee County is very proud of the distinction of having contributed to the Auxiliary of the American Medical Association during this year three national officers: Mrs. Robert E. Fitzgerald, president; Mrs. Eben J. Carey, who is president of the Woman's Auxiliary to the Medical Society of Milwaukee County and has been national treasurer for three consecutive terms; and Mrs. J. Gurney Taylor, national corresponding secretary.

Mrs. Benjamin Lieberman, in charge of the musical program, presented the Marion Yahr Ballet in several delightful dance numbers in costume, after which Mrs. Phyllis Sokol played a fine violin solo with Mrs. Benjamin Waisbren as her accompanist.

A short business meeting followed. Mrs. N. Warren Bourne, membership chairman, announced election of, and presented six new members: Mesdames A. Montgomery, Henry Smith, K. Friedbacher, H. E. Panetti, S. B. Black, and Elwood Mason.

Mrs. Carey, president, stated that the recent rummage sale conducted by the Auxiliary had netted $327.50, which amount has been allocated to the Committee on Hygeia for use in connection with Milwaukee County's subscription quota.

Announcements were made of future events as follows:

(a) The next regular meeting of the auxiliary will be held on Friday, October 8, 1937.

(b) The annual meeting of the State Medical Society of Wisconsin, as well as that of the Auxiliary, is to be held in Milwaukee next September. Interesting plans are in progress and every Auxiliary member in the State is urged to come.

Racine

The Woman's Auxiliary to the Racine County Medical Society held a luncheon meeting on the mezzanine floor of the Hotel Racine on May 11 at one o'clock. Dr. Russell M. Kurten discussed the subject of "Cancer Control."

Washington-Ozaukee

The Woman's Auxiliary to the Washington–Ozaukee County Medical Society, composed of wives, widows, mothers, and daughters of members of the medical society, was organized last fall with a membership of twenty-one women. The Auxiliary is not only for social activities but also to further the work being done by state and national auxiliaries.

Meetings are held once a month on the second Thursday, at the home of one of the members, and each month in a different city. After the business meeting, a social hour is spent at cards. The April meeting was held at the home of Mrs. W. J. Wehle, West Bend, and the May meeting was held in Port Washington.

Waupaca-Shawano

Twenty-one members of the Woman's Auxiliary to the Waupaca and Shawano County Medical Societies heard Mrs. C. A. Harper, of Madison, president of the Woman's Auxiliary to the State Medical Society of Wisconsin, in a talk at the Elwood Hotel on May 12. She was guest speaker at the 1:30 luncheon at which the final organization of the Waupaca–Shawano Auxiliary took place. The aims, ideals, and purpose of the Auxiliary formed the basis of Mrs. Harper's discussion.

Mrs. J. H. Murphy, president, presided at the meeting. Other officers are Mrs. F. J. Pfeifer, New London, president-elect; Mrs. W. H. Finney, Clintonville, secretary; and Mrs. M. O. Boudry, Waupaca, treasurer.

Chairmen of committees appointed are:

Mrs. A. A. Cantwell, Shawano, program
Mrs. R. Van Schaick, Marion, Hygeia
Mrs. J. Monsted, New London, membership
Mrs. W. J. Irvine, Manawa, public relations
Mrs. L. G. Patterson, Waupaca, press and publicity
Mrs. E. A. Miller, Clintonville, historian.

News Items and Personals

The American Association for the Study of Goiter will meet in Detroit, Michigan, on June 14, 15, and 16, with headquarters at the Book–Cadellac Hotel. Dr. Arnold S. Jackson, Madison, will present a paper entitled "Needless Thyroid Surgery—An Analysis of One Hundred Cases."

—△—

Announcement has been made by the Crippled Children Division of the State Department of Public Instruction regarding an orthopedic field clinic which will be held in Rhinelander on Saturday, June 12. This clinic will be held under the joint auspices of the Oneida–Vilas County Medical Society and the Crippled Children Division. The county medical society has extended an invitation to two orthopedists to conduct the examinations on that day. This clinic will serve children from Oneida and Vilas counties and also children from surrounding counties if their physician wishes to refer them for consultation service.

—△—

Dr. William A. Ryan, chairman of the first-aid division of the Medical Society of Milwaukee County, spoke at the second session of the school of first aid and health on Monday evening, May 26. This school is conducted by the Milwaukee Association of Commerce. The meeting was held at the public museum with 1,200 employees of 150 industrial plants in attendance.

—△—

Dr. W. S. Miller, emeritus professor of anatomy at the University of Wisconsin, was the guest of honor at a dinner Friday evening, May 7, in the Memorial Union. The dinner was given for him by members of Phi Beta Pi, medical fraternity. Following the dinner an address was given by Dr. R. R. Bensley, emeritus professor at the University of Chicago, on the subject of "Protoplasm."

PENALTY FOR NEGLIGENCE

Every physician is warned to renew his federal narcotic permit *before* July 1. The renewal fee is $1, but in case of tardiness a 25 per cent fine is invoked, and the prescribing of narcotics after a permit has expired and prior to the issuance of a new permit leaves the practioner open to further substantial penalty.

Do not fail to renew your permit before July 1.

Dr. F. O. Brunckhorst was named recently to succeed Dr. B. K. Ozanne as city health officer of Neenah. Doctor Ozanne resigned because of the pressure of other duties.

—△—

Dr. S. J. Seeger, chief of staff at Milwaukee Children's Hospital and the Columbia Hospital, was presented with an award of merit by the Northwestern University Alumni Association, which met at the University Club, Milwaukee, on May 5. The award was made "in recognition of worthy achievement which has reflected credit upon Northwestern University and each of her alumni."

—△—

Dr. J. C. Troxel, Appleton, has been named city physician and health officer to succeed himself.

—△—

At a meeting of the Kansas State Medical Association in Topeka, Kansas, on May 5, Dr. Arnold Jackson, Madison, discussed regional enteritis and the importance of not mistaking it for appendicitis.

—△—

At a formal Founder's Day banquet held at the Alpha Chi Rho fraternity house in Madison, May 9, Dr. G. F. Tegtmeyer, of Milwaukee, was the principal speaker.

—△—

Dr. C. N. Sonnenburg was appointed a member of the board of police and fire commissioners at Sheboygan recently.

—△—

Dr. M. C. Rosekrans, of Neillsville, was guest speaker at a hobby show held at the home of Mrs. G. H. Lowe on April 26. His subject was "Syphilis, and Ways of Combating Same."

—△—

Dr. O. F. Partridge, Mattoon, addressed a meeting of the Rotary Club at Shawano, April 26. He discussed the underprivileged child and the observance of Child Health Day.

—△—

Under the direction of Dr. T. J. Snodgrass, of Janesville, a demonstration on the handling and transporting of injured persons was presented at the Rock River Valley Safety Conference, which was held on Tuesday, May 4, at the Janesville High School.

—△—

Northwestern Hospital, Minneapolis—The staff of this institution, which was founded in 1882, is desirous of getting in touch with all former interns. A home-coming and reunion are being arranged, to be held on Saturday, June 19. Beginning at 8:00 a. m., a varied program of operative and dry clinics, scientific demonstrations, and so forth will be given by the staff until 1:00 p. m., when luncheon will be served at the hospital. Following this there will be a boat ride on the Mississippi. The "Donna May" has been chartered and will leave the dock at 3:00 p. m. Entertainment will be provided and refreshments served, with dinner on the boat later. It is hoped that at least 200 will attend and an enjoyable occasion is promsied. Dr. Arthur E. Benjamin and Dr. William A. Hanson are in charge and will be very glad to hear from those who have served as interns in the hospital, so that they may be sent invitations and all information. A card or note addressed to either of these committee members, in care of the hospital, will receive prompt attention.

PLEASE RETURN LANTERN

During the rush to fulfill requests for cancer film strip projectors, one of the lanterns was shipped without recording the name of the physician to whom the lantern was sent. If this lantern should be in your possession, will you return it at once to the State Medical Society, 119 East Washington Avenue, Madison.

—△—

Dr. Rock Sleyster, director of the Milwaukee Sanitarium and treasurer of the State Medical Society of Wisconsin, was recently named a new member of the Board of Governors of the American College of Physicians at its twenty-first annual convention in St. Louis.

—△—

Dr. and Mrs. Louis M. Warfield, of Milwaukee, returned on May 10 from Atlantic City, New Jersey, where Dr. Warfield attended the meeting of the American College of Physicians.

—△—

Dr. J. C. Devine, of Fond du Lac, has been appointed health officer of the city for a period of two years to succeed Dr. A. M. Hutter.

—△—

At the meeting of the medical staff of Sheboygan Memorial Hospital, Wednesday evening, May 5, Dr. T. J. Gunther was named successor to the late Dr. O. T. Gunther as chief of the medical staff.

—△—

Dr. E. L. Watson, who for five years has been practicing medicine at Columbus, has located in Ripon where he has entered into a partnership with Dr. D. F. Cole.

—△—

At the weekly meeting of the Rotary Club at the Murdock Hotel, Shawano, May 2, Dr. R. C. Cantwell spoke on "Quackeries and Nostrums."

Dr. F. M. Frechette, Janesville, chairman of first aid of the Rock County Chapter, American Red Cross, has been named chairman of the new medical board of that organization. Other members of the board are Dr. S. A. Freitag, Dr. C. R. Gilbertsen, and Dr. G. Stanley Metcalf.

—△—

Dr. C. J. Rollefson, head of the physiology department at the State Teachers College at Superior since 1912, has resigned his position. Upon his retirement, which is effective September 9, Doctor and Mrs. Rollefson will tour the United States. The trip will include visits to New York, Philadelphia, Washington, D. C., Arizona, Los Angeles, the west coast and north through Glacier National Park and Yellowstone Park.

—△—

Observing the fifteenth anniversary of the opening of the Sheboygan Clinic, the medical and surgical personnel of the institution, their wives, and the employees met at the Foeste Hotel on May 1. Dinner was served to forty-seven persons. Dr. H. H. Heiden, president of the clinic, acted as toastmaster, and interesting talks were given by Doctors A. E. Genter, O. A. Fiedler, C. H. Squire, and G. H. Stannard, all of whom were original members of the clinic when it was organized and opened for public service fifteen years ago. The subject of these talks was confined to matters connected with the early days of the institution and outstanding incidents which occurred during the intervening years.

—△—

At a meeting of the Parent–Teacher Association in Princeton, May 10, Dr. G. G. Mueller was the principal speaker. His talk was on "Mystery, Magic, and Medicine."

—△—

Dr. L. D. Quigley, Green Bay, addressed a meeting of Robert McEachron Circle of Columbian Squires, May 6, on the subject of social diseases.

—△—

Dr. N. A. Bonner, Manitowoc, has been elected county physician of Manitowoc County.

—△—

Dr. S. E. Gavin, Fond du Lac, president of the State Medical Society of Wisconsin, was guest speaker before the fifteenth annual conference of public health nurses and members of county health committees in Madison April 27–30. The program was largely devoted to the problem of further reduction in the field of maternal and infant mortality.

—△—

The subject of combating cancer was discussed by Dr. E. F. Schneiders, of Madison, before the American Home Department of the Women's Club at the Woman's Building on Friday afternoon, May 14.

At the meeting of the Wisconsin Hospital Association held in Chicago recently, Mr. J. G. Crownhart, secretary, was given a three months' leave of absence from his duties. Dr. E. T. Thompson, superintendent of Mount Sinai Hospital, Milwaukee, was elected secretary pro tempore. Dr. R. C. Buerki, superintendent of the Wisconsin General Hospital, Madison, was reelected president, but upon his resignation directly thereafter Miss Grace Crafts, superintendent of Madison General Hospital and first vice president of the Association, assumed the duties of the presidency.

BIRTHS

A son, Bruce Martin, to Dr. and Mrs. Irving B. Shulak, Madison, on April 17.

DEATHS

Dr. Louis P. Gaillardet, Fairchild physician, died at his home on Wednesday, April 22, following a stroke suffered the previous Monday.

Doctor Gaillardet was born in 1858 in Toulous, France, was graduated from Yale University in 1882, and practiced medicine in Montreal, Chicago, Formoso, Kansas, Marinette, Black River Falls, Fairchild, and Greenwood. He was a member of the board of health in Kansas and city health officer and county physician in Black River Falls. He is survived by his widow.

Dr. John D. McRae, a physician and surgeon of the community of Chippewa Falls, died suddenly at his home on April 20 following a brief illness.

Doctor McRae was born in Glengarry, Ontario, in 1868, and was graduated from McGill University Faculty of Medicine, Montreal, in 1897. He was associated with St. Joseph's Hospital at Chippewa Falls since its founding, and for many years was a director of the Lumbermen's National Bank. He was a member of the Chippewa County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Surviving are his widow, two children, a brother, and a sister.

Dr. George E. Peterson, of Waukesha, was born in Chicago in 1869 and died at the Municipal Hospital, Waukesha, April 21. His death was due to heart disease.

He was graduated from the Milwaukee Medical College in 1901, and started his medical career in Seattle, Washington. A year later he opened offices in Waukesha. In 1904 he served a term as public health commissioner in Waukesha and again in 1915 took this office, remaining in the work until 1926. He was a member of the Waukesha

County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association. He was also a member of the Radiological Society of North America and the American Congress of Radiology. He specialized in roentgenology and radiology.

Surviving are his widow and three children.

Dr. James W. Pinch, a Wisconsin physician for a number of years, died on April 30 at the Deaconess Hospital, Milwaukee. He was born in Wheatley, Ontario, and attended the Michigan College of Medicine and Surgery, Detroit. Upon receiving his medical degree in 1891 he came to Wisconsin and practiced in the counties of Oconto, Vilas, and Florence until his retirement in 1928. A son and two daughters survive.

Dr. Clifford Ouellette, Oconto physician, died April 29 at a Milwaukee hospital from complications following influenza. He was born in Rubicon, Michigan, in 1890, was graduated from the Marquette University School of Medicine in 1914, and served his internship at Milwaukee County Hospital.

Doctor Ouellette served as county physician of Oconto County for a number of years, and during the World War served in the medical corps at Fort Riley, Kansas, and Fort Oglethorpe, Georgia, with the rank of captain. He was a member of the State Medical Society of Wisconsin, the American Medical Association, and the Oconto County Medical Society, holding the office of secretary for a number of years. He was active in civic affairs and at the time of his death was surgeon for the Chicago and Northwestern Railroad, also belonging to the American Association of Railway Surgeons.

Surviving are his widow and one son, Joseph; a sister, and a brother.

SOCIETY RECORDS

New Members

T. M. Paulbeck, 3076 N. 27th St., Milwaukee.
J. W. McRoberts, Sheboygan Clinic, Sheboygan.
C. C. Gascoigne, Kohler.
V. J. Hittner, Seymour.
C. V. Kierzkowski, Beaver Dam.
H. O. Shockley, Darlington.
N. A. McGreane, Darlington.
Fred Johnson, 325 Bellinger St., Eau Claire.
E. R. Daniels, Statesan.
Mark Foley, St. Nazianz.
Eleanora Fabry, 2430 W. Wisconsin Ave., Milwaukee.
W. H. Bickel, 2629 W. Greenfield Ave., Milwaukee.
L. T. Peyton, Sacred Heart Sanitarium, Milwaukee.
E. J. Shabart, 6602 W. North Ave., Wauwatosa.
Sara G. Geiger, 515 Public Safety Building, Milwaukee.
Ivan B. Taylor, Wisconsin General Hospital, Madison.
J. T. Morrison, 441 E. 57th St., New York City.
Lewis Jacobs, University of Wisconsin, Madison.

Changes in Address

C. R. Kwapy, Pulaski, to Oconto.
H. M. Coon, Stevens Point, to Wisconsin State Sanatorium, Statesan.
T. L. Harrington, Milwaukee, to River Pines Sanatorium, Stevens Point.
Frances Cline, Madison, to Rhinelander.
G. M. O'Brien, Philadelphia, to 1229 Rawson Ave., South Milwaukee.
James M. Sullivan, Philadelphia, to 3950 N. Farwell Ave., Milwaukee.
C. F. Broderick, Stevens Point, to Nekoosa.
Chalmer Davee, Madison, to River Falls.

Assembly Committee on Public Welfare Recommends Killing For Compulsory Sickness Insurance

BY A VOTE of four to two the Assembly Committee on Public Welfare reported on May 21 its adverse recommendation on bill 852, A, proposing a system of compulsory sickness insurance for Wisconsin which would affect upward of 56 per cent of the population. The hearing on the bill was held on Thursday afternoon, May 13. Originally scheduled for one of the committee rooms in the assembly wing of the capitol, because of the large number attending it was found necessary to transfer the hearing to the large public service hearing room. Throughout the afternoon large numbers were required to stand.

In accordance with customary procedure the chairman of the committee, Assemblyman Kiefer, of Milwaukee, announced that the committee would first hear from those who wished to appear in favor of the bill, whose author was Assemblyman Andrew J. Biemiller, of Milwaukee.

Committee on Public Welfare:

Edward H. Kiefer, Chairman; Andrew J. Biemiller; Mary O. Kryszak; George H. Hipke; Theodore Swanson; Joseph L. Barber; Oliver H. Fritz.

Chairman Kiefer: "The meeting will please be in order. The clerk will call the roll."

(Roll call showing all members present with the exception of Theodore Swanson, Joseph L. Barber and Oliver H. Fritz, who appeared after the roll was called.)

Chairman Kiefer: "Speaking for the Committee, I wish to state that we are anxious to hear everyone appearing for and against a bill. However, we have quite a large calendar, and we would suggest that you avoid repetition,—by that I mean that two or three people do not talk in the same manner on the same points. However, that does not exclude anyone that feels they ought to be registered from doing so with the clerk after the hearing on the bill.

Bill 852, A

Chairman Kiefer: "We will take up 852."

Mr. Biemiller

(Member of the Committee on Public Welfare—author of the bill)

Mr. Biemiller: "Mr. Chairman and members of the committee: May I, at the outset, make perfectly clear that bill 852 embodies a principle which is not embodied in bill 850, which was before this committee last week. There has been some confusion in this matter in certain newspaper articles which have been run and other talks that I have had with people, and letters I have had.

"You will recall bill 850 was before this committee last week. That is a bill to permit the setting up of voluntary insurance schemes and medical cooperatives. [*Ed. Note—see May, 1937, Wisconsin M. J.*]

"This bill that is before us this afternoon is endeavoring to set up a compulsory health insurance system for the state of Wisconsin. The bill was introduced at the request of and on behalf of the State Federation of Labor. The organized labor movement in the state of Wisconsin feel this is an important step which must be taken. Anyone who is familiar with the general problem of health insurance knows that there are only three countries in the world of any size or importance that do not have health insurance laws on their statutes at the present time. Those three countries are India, China, and the United States of America. All other countries—whether democracy, Communist, Fascist or what they are—have health insurance systems in operation, the first system having been established over fifty years ago in Germany."

Finances

"Now, the second thing is this: Under a compulsory health insurance law, with contributions from the employer and employee, we will meet the cost of medical care for all people in the state of Wisconsin whose income is less than $60 a week, and that provision which is in there is exactly the same provision that you have under the Social Security Act of the United States. As a result, we are able to know just how many people are coming under the terms of the Act. The last report from the Social Security Board of Wisconsin was on March 22, which pointed out that 537,203 people are covered under the terms of the Social Security Act. The same people would be covered by this bill if it became law. Furthermore, using the figures of the Social Security Board to estimate one and one third dependents for each covered person under that Act, we arrive at the figure of about 1,200,000 people who would come under the terms of the bill, so it does include dependents.

"We are providing a 4 per cent pay-roll tax to raise the fund necessary to carry on the operations under this bill. That tax would be distributed equally between employer and employee. We arrive at that 4 per cent figure from the statistics of the Committee on the Costs of Medical Care, which stand slightly above 4 per cent of the national total budget for medical care in the United States. However, those figures of the Committee on the Costs of Medical Care include the amount spent for public health and similar groups, so that we figure that our 4 per cent covers this matter adequately and will take care of the cost of administration. Our estimate is that the 4 per cent pay-roll tax will raise somewhere between twenty-five and twenty-eight million dollars. That amount is arrived at by consulting the figures of the Unemployment Compensation

Board data at the present time, and we think that is a figure which will reasonably meet the costs that come up under this bill.

"The proposal is that medical benefits only, in its present form there are no cash benefits in this bill, but medical benefits only are to be paid out for a maximum period of twenty-six weeks for each year. The benefits are general and specialist care, nursing and hospital care, drugs, laboratory, examinations, and some dentistry,—only dentistry where it is of an acute nature, that definitely affects the health of the patient."

Policy-Making Board

"We have established under it a policy-making board to be composed of representatives of doctors, employers, employees, hospitals, pharmacists, dentists, and the general public, representatives to be appointed from a list submitted to the Governor by the State Medical Society, the State Dental Society, the State Pharmaceutical Society, the State Hospital Association, and so on. That policy-making board would determine the manner in which certain aspects of the bill were to be carried into operation, and will, as I say, be appointed by the Governor. We propose to set up a health insurance division which would be in the State Board of Health, having the same relation to the State Board of Health that the unemployment division has to the Industrial Commission at the present time. The advisory council I have just described would appoint an administrator who would supervise the general problems that would arise, and would have charge of the staff administering the purely economic and social aspects of the bill. Furthermore, the advisory council would appoint, from a list submitted by the State Medical Society, a medical officer who would have complete charge of medical matters that would come up under the bill."

Scientific Aspects

"I want to make this point perfectly clear: that bill 852 is in no way trying to affect or influence the scientific aspects of the medical profession. Health insurance is not some new or novel way of treating disease; it is simply a new form of paying for the costs of medical service, applying the insurance principle and distributing the costs over the entire group of wage earners and salaried people who come under the classifications of this bill,—and the entire problems of medical science, the scientific aspects of this whole question will be left exclusively in the hands of medical men, and there will be no effort made to interfere in that situation. We do not provide for any lay supervision over medical matters, and the bill provides complete free choice of physician; it provides that people coming under this bill, the provisions of it, will go to their local group and would make their choice of physician from a panel which would be available to them, and on that panel any doctor licensed to practice in the state of Wisconsin may register. That is up to him, whether he wants to do so or not; but he has that choice. A doctor registering on the panel does not have to retire from private practice. In other words, may I make this clear,—and I hope the *Milwaukee Journal* notes this, if nobody else hears me say it: this is not a socialized medicine bill, it is not state medicine. It permits doctors to voluntarily come under this if they desire, and permits patients to make free choice, and no one is on salary. Physicians are to be paid on either a fee basis or a capitation basis, as they themselves choose, their advisory committees consulting with the medical officer and the director. It is probable they would choose the capitation scheme, because that is the one most of the European ones have come to after they have fooled around with the various schemes. But we do not propose to put in any salaried physicians who would have to devote their full time to this type of work. With free choice of physicians, we believe we are not making any change in the existing personal relationships between doctors and patients.

"If any complaints arise between patients and doctors concerning medical care, the matter will be handled only by the medical officer who is appointed under the terms of this bill.

"Now, at the risk of appearing repetitious on this matter, I want to again emphasize

that this proposed health insurance law is not trying to interfere with the scientific aspects of the medical profession. I do that because that charge is frequently hurled by opponents of health insurance as one of the chief drawbacks to it; that lay people who have no knowledge of scientific problems are given control over the medical profession. I agree with the doctors that is too drastic. It is the last thing in the world I would like to see happen, and we have tried our best to put provisions in this bill to prevent it. If people think it doesn't prevent it, if they have amendments to present, we would be only too happy to have these amendments and find out if they really would improve the provisions we have at the present time."

Costs of Medical Care

"Now, in general, of course the argument back of the bill is the same general argument which was advanced here on previous bills. We do not believe that at the present time the great mass of the wage earners in this State are able to adequately meet the costs of expensive illnesses. It is the catastrophic illness that descends upon a family, that runs up a bill of thousands of dollars, that is causing the difficulties here today. The figures of the Committee on the Costs of Medical Care show this: that the average family can meet the average costs of medical care, but unfortunately that isn't the way these costs are distributed at the present time. They fall very heavily upon a very small proportion of the population. What we are trying to do here is to spread this load so it comes upon all people.

"Mr. Crownhart made a statement here today which I have heard him make before and which I have heard practically every doctor I know make, and with which I agree, —I do not believe there is anybody in the state of Wisconsin today who, if they go to a doctor, will be refused medical care, but I say this, and I think most of you recognize it, the point Mr. Kiefer was making earlier: there are thousands upon thousands of people who need medical care who don't want charity, and who won't go to a doctor unless they think they have a way of paying for the costs of medical care. Those are the kind of people you will find in the ranks of the wage earners; they are self-respecting people, they don't want charity and they do want some method by which the various costs of medical care can be met, and I believe that this insurance principle is the best way of arriving at the solution of that problem, and that is the reason why they are backing this whole situation."

Quality of Medical Care

"Now, the minute you start talking health insurance somebody immediately says: 'Yes, I know what you say is true, practically every other country in the world has some form of health insurance; but what happens is that when you have health insurance the standard of medical care deteriorates and everything goes to pieces.' Now, that has always puzzled me from several angles, because, from what I have known for years of friends in the medical profession, most doctors, when they are thinking of taking some advanced postgraduate work and some very specialized work in medicine, go to Europe; they go to European countries for that advanced postgraduate work; they have gone to countries in which the insurance principle has been in operation for years. Now, if that service has deteriorated so much, I don't quite understand why they run to those countries, where this service is supposed to have deteriorated, to do their postgraduate work.

"But I think over and above that general argument with which most of you are probably familiar, I want to submit in evidence here this afternoon certain conclusions that were reached, from what I think—and I think most people will agree with me on this —has been the most scholarly and the best study that has been made of the various health insurance schemes in the world today. I refer to the book by Simon and Sinai,— 'The Way to Health Insurance,' a study made in 1932 by these two very well qualified scholars, for the American Dental Society. These two gentlemen spent considerable time in studying the various schemes, and I want to quote directly from them on some things:

" 'There is practically unanimous agreement that the insured receive better medical care than they did before they were insured.

A logical, although not necessarily wholly certain conclusion is that those protected by insurance are better cared for than the corresponding economic case in non-insurance provides.'

"Now, I go on further:

" 'There is practically no important opposition to the principle of health insurance in any country where it now exists.'

"Let me just elaborate on that point for a moment. To the best of my knowledge, in any country where a health insurance law is now in effect, there is no important opposition trying to get that law repealed. The medical societies of the various European countries are now cooperating very fully with the health insurance setups in those countries. In England, Henry Backhauber has been in print time after time, commenting on the value of their health insurance law. One royal commission after another in England has studied the law, and they have come back actually with recommendations for improvements or minor changes in the law, but not once has a royal commission in England ever proposed abolishing their law."

Physicians' Incomes

"Now, I come back again to Simon and Sinai's study, and they say this:

" 'There is wide variation in professional incomes under insurance, but they will average at least as high and somewhat higher than they were in private working practice before insurance. There is no loss from bad debts, and a much larger amount of money spent for physicians and dentists.'

"I quote that to meet the argument raised that doctors will suffer terribly if that is put into effect. I don't think that is the fact at all, from the study I have made and the study other people have made. On the whole, the physicians in these various countries where these laws are in operation have been, on the whole, better off than they have been under the present private fee system with which we are so familiar.

"Now that, in a very brief way, is the evidence I wish to submit to this committee this afternoon. As the committee knows, I had a pretty hard session this morning, when we spent five hours on a bill that was four and one half pages long. I don't know how many hours we are going to spend on this one that is twenty-eight pages long. Also, there are other people who are here this afternoon who will follow me, who will go into the aspects of this problem as they may arise and give the results of some studies that have been made. I may, later on, as the hearing progresses, wish to speak again, briefly, but I think in general the evidence that I have submitted is the evidence that is primarily—the minimum primary amount of evidence, necessary to present the case for health insurance."

Farmers Exempt

Mr. Hipke: "How do you propose to handle that large group consisting of the farmers, the farmer's wife and the farmer's daughter?"

Mr. Biemiller: "The farmers don't come under this bill at all, a situation with which you are familiar because of your knowledge of compensation laws. I have been proceeding here, and a lot of other people have been proceeding here, when we drafted this bill,—I might add when this bill was drafted a great many people who were experts in the field were here helping us work on it, including one of the representatives of the Social Security Board in Washington who came out here specially to try to get the best possible bill in shape. And on the matter of including that farmer problem, the matter of recognizing them under compulsory health insurance laws, we can't find any way of bringing the farmer in in a way which will not involve such a terrific overhead expense as would defeat the very purpose of the thing we are trying to do.

"I have two other bills in that I think will meet rural medical problems that are scheduled before this committee in the next couple of weeks; but I have frankly found no bill to bring them in satisfactorily under a health insurance law. They represent a larger proportion of the population than the population covered by this bill."

Mr. Swanson: "How is it that the Federation of Labor and other organizations are

drawing up only bills to take care of the labor unions, and leaving the farmers out?"

Mr. Biemiller: "After all, the State Federation of Labor is concerned with labor problems, and we expect that organized farmers will look after their problems. The bill that was up here last week did, as you remember yourself,—bill 850 dealt with the voluntary approach to the problem of health insurance, and on that bill we consulted the farm organizations,—but that bill did cover both situations. My own guess is that the immediate approach on the rural problem comes under bill 850. I think that is the way of approaching the problem, on the matter of cooperatives; and on that farmer organizations did appear. But the problems of organized labor are the problems of organized labor, and we feel that organized farmers are going to look after their problems in the same way."

Mr. Hipke: "But isn't the problem of health a problem of the whole State?"

Mr. Biemiller: "As I stated, we have three bills that we think do apply on rural matters. I don't want to today testify on bills that will be up here two weeks from now, but we have other bills in that will deal with these rural problems."

Question from audience: "May I ask a question? What would be the objection to having this voluntary rather than compulsory? Supposing I am opposed to receiving medical aid, shouldn't I have the privilege of withdrawal from entering into this state insurance? Why can't I handle my own protection?"

Mr. Biemiller: "You don't have to accept the medical care, but the pay-roll tax would apply. There is nothing to make it necessary for you to accept it."

Question from audience: "The Social Security Act is something I would prefer not to be under, and this too. I think we should have a chance to choose."

Mr. Biemiller: "You are simply raising a problem of modern government. You have got to recognize we are in a very highly developed group society, and laws have got to be made for the groups and not for some individual that may benefit in and out of the scheme."

Chairman Kiefer: "Anyone else wishing to appear for bill 852?"

Mr. J. F. Frederick

(Federated Trades Council, Milwaukee)

Mr. J. F. Frederick: "J. F. Frederick, representing the Federated Trades Council, of Milwaukee. Mr. Chairman and gentlemen of the committee: I do not care to discuss the facts of the bill. I merely wish to discuss and go on record in favor of the general principle of this bill."

Three Major Hazards

"As a representative of organized labor, I wish to say that organized labor has long recognized that there are three major hazards that workers have to face; there are three great fears in the lives of workers; that is, the fear of unemployment because of the breakdown of industry, the fear of old age and being replaced in industry because of age, and the fear of the loss of time because of sickness or accidents. The organized labor movement has for a long period of years sought to establish safeguards for the workers along those lines, and to remove those fears in the minds of the workers. It is for that reason that the organized labor movement has been in favor of social legislation and social security legislation.

"At the present time we have made a good start in meeting some of these problems. We have, in the state of Wisconsin now, an unemployment insurance act, an unemployment compensation act, which to some extent meets the problem of unemployment. Wisconsin was the first state to enact such a law. Today there are forty-three states in the Union that have laws of that kind. Of course, those laws came about because of enactment of the social security legislation by Congress.

"On the matter of old age, again the Social Security Act has made some provision for removing that fear from the minds of workers. So far as the loss of time due to illness or injury is concerned, a part of that has been met through the enactment of the

Workmen's Compensation Act passed in this State in 1911. That takes care of injury or sickness resulting as a direct cause of unemployment in industry, but it has left out that other illness which may occur outside of the course of employment; so that today this fear of sickness is the last great fear that the workers have to fear, and we hope that it will be possible to remove that hazard as well as other hazards have been removed. It has been possible to remove all these other hazards only through legislative action, through the government itself recognizing the fact that government is responsible for the welfare of its people; and in all those cases it has been a question of establishing some sort of tax which can be spread over a great number, and so that the burden does not fall heavily upon any one."

Another Tax

"Now, I know that of course arguments are going to be advanced that this is another tax; that it is burdensome upon the employer; that it is burdensome upon the employee; that in this case the argument will be advanced, that it will perhaps injure those that are in the profession of rendering medical service. You heard all of those arguments through all of those years. When the question of workmen's compensation was first proposed, industry opposed it because they said industry couldn't carry that burden, industry couldn't afford to pay workers when they were not employed and not rendering service; and I don't believe there is anyone today who would care to have the Workmen's Compensation Act repealed.

"When the organized labor movement started its agitation for unemployment compensation back in 1921, we met the same argument, and it took ten years to get the unemployment compensation act passed. It is in operation in the state of Wisconsin now, the first state in which it is in operation. As I say, there are forty-three other states which since then have passed unemployment compensation acts. And when the question of old age pensions and old age assistance was first broached, we made exactly the same argument; and yet we have found that it can be done, and we believe that it can be done in this instance,—to remove that last great hazard that workers who are in the lower income groups as a rule are facing."

One Cardinal Fact

"The question may be raised, as it has been raised here, that perhaps there are some individuals who do not care to come under it; but I think we ought to recognize this one cardinal fact, and that is that the question of illness of the individual does not only affect the welfare of that individual, it will, in the first instance, affect the welfare of his family, but beyond that it may affect the welfare of the community. And as we have learned that those things which affect not only the individual but also others must be a problem which society as a whole has to accept, so I think we ought to be ready to accept them here. Let me give you an example.

"We recognize today that in our society we need education, we need education for all of the people. Yet there are some who do not send their children to public educational institutions, they send them to private institutions; but because they do not, we do not exempt them from bearing their share of the cost of the upkeep of public institutions. We say that the mere fact that those institutions are here is of benefit to society as a whole, and even though an individual may not help make use of that institution, he is benefited by the fact that the community as a whole is benefited. I think the same holds true here. If the health of a community is raised, if the health statistics of the State are raised, we, all of us, benefit by it and should be willing to all of us pay our part of it.

"And it is on that basis and because we do know, we, in the organized labor movement who come in close contact with workers in industry, know that the cost of medical service is in many cases a great hardship upon the individual worker,—it is because we know that we want to do something to make it possible for these workers to get the best possible care in a manner which will not be a burden nor a hardship upon anyone.

"It is true that doctors do give service even to those that may not be able to pay, but

it is more often true that a worker who is unfortunate enough to have a great deal of illness in his family, that such a worker will pay the price, but by doing that he will deprive himself and his family of many other things that are necessary. Many of these workers will assume a debt and will work for years to pay off that debt, neglecting the education of their children,—in some cases neglecting to feed their people properly, their families properly, in order to be able to pay that debt which is thrust upon them through misfortune.

"We do not believe that that is necessary; we believe that this burden can be spread over all of us, and if there are some of us fortunate enough not to have illness then we ought to be willing—and we in the organized labor movement are willing to say that we are willing—to make our contribution to help our fellow worker who is less fortunate. And we believe that this movement of health insurance is a movement which is fair and just; we do not believe that in the long run it will injure even those in the medical profession. They will have under it the possibility of getting an income just as they are doing now; they will have their freedom of going on these panels or staying off, as they see fit; they will have their freedom of not taking a patient that they don't want. The patient, on the other hand, will have the freedom of selection of physicians to a large degree,—that is, that he can choose anyone who is on the panel. And if we get the right proposition, as I hope we will in the final analysis from the medical fraternity, why then I don't think there is anything to fear in this, and I think a great deal of good in elevating the standards of health of our communities and of our State will be accomplished."

Chairman Kiefer: "Any questions?"

Dr. Barber: "Isn't it a fact that the Wisconsin Federation of Labor have a board of three men that has incorporated to protect labor, at $50,000 a year? Isn't that a fact?"

Chairman Kiefer: "The Labor Relations Board."

Dr. Barber: "Yes, the Labor Relations Board."

Mr. Frederick: "Well, the state of Wisconsin has a Labor Relations Board."

Dr. Barber: "Isn't it a fact that is unemployment insurance? Now, can you show me any industry in the state of Wisconsin that has any board of any kind of that character? We are perfectly willing to give you all of this, but, if you continue, where are the people in Wisconsin going to get off at? Where are we going to get off at? You people ought to be satisfied with what you have got, we have done all we possibly could do. Why should you continue to ask for something that you are not entitled to?"

Mr. Frederick: "Well, Doctor, may I say this: That as long as we feel there are any improvements to be made in the lot of the workers, we are going to ask that those improvements be made. No matter what I think, though, in making improvements or seeking to have improvements made for the workers and incidentally the farmers,—may I say we will support any legislation that is in the interests of the farmers, but of course we don't want to impose our wish on the farmers, we would rather have them get their proposals, and we will support any such measures."

Mr. Swanson: "But isn't it a fact that under the national security act the farmers have been left out in the cold? Isn't it a fact under this proposition that you are leaving the farmers out in the cold; and you are setting up here a new state board, the members of which are going to get a per diem of $25 a day?"

Mr. Frederick: "Oh, no, I say as far as the farmers are concerned, it is because of the nature of the employment, because of the fact that the relationship of employer and employee does not exist that you can't apply the same basis of taxation to the farmer that you can to the industrial worker. If that basis could be applied, we would be more than happy."

Mr. Swanson: "So then under those conditions the farmers are to be left out in the cold, in order that labor may secure the benefits?"

Mr. Frederick: "No, I don't believe that that is true."

Mr. Swanson: "It is true to a large extent in the bills that are being presented to this legislature by the Federation of Labor and other organizations."

Mr. Frederick: "We can't, under these standards that are set up, include the farmers. We are happy, however, to support any legislation which will take care of the farmers in that respect. However, may I again say that while we have the closest sort of cooperation from farm organizations, it is the opinion of the Wisconsin State Federation of Labor that it is the farm organizations who should propose the legislation for the welfare of the farmers, that it is not up to us to impose our ideas and our will upon the organizations of the farmers. We will support them in anything that they feel is for the advancement of the farmers of this State."

Chairman Kiefer: "Any other appearance? Is there anyone else who wishes to appear in favor of bill 852?"

Mr. Fred E. Gastrow

(Wisconsin State Council of Carpenters and Wisconsin Federation of Labor)

Mr. Fred E. Gastrow: "Fred E. Gastrow, of Madison, Wisconsin, representing the Wisconsin State Council of Carpenters and the Wisconsin State Federation of Labor. Mr. Chairman and members of the committee: I want just to register the Federation in favor of this bill. I want to say right here that last week when a proposition similar to this was up, 850,—a cooperative proposition which the farmers were for—I was here appearing in favor of it for the State Federation of Labor. At any time when the farmers have a proposition that is acceptable to them, the committee here can consider the Wisconsin Labor movement back of it to help them get it. We are willing to do that at any time; but, as Mr. Frederick has said, we don't want to impose something on them that we are not sure they want. But when you show us something that is good that you want, the Wisconsin Federation of Labor will be with you on it."

Chairman Kiefer: "Anyone else? Does anyone wish to appear against the bill?"

J. G. Crownhart

(Secretary, State Medical Society of Wisconsin)

Mr. J. G. Crownhart: "George Crownhart, secretary of the State Medical Society of Wisconsin. What we want to do here in limited time is to pick and choose so as to bring into focus the essentials of this bill, that deals with an exhaustive subject. I will try to confine myself just to that. As a preliminary statement, may I make it perfectly clear this does not cover just the catastrophic illness; it covers all illness. Mr. Biemiller made the statement that incomes of physicians are not affected, and, if anything, they might be improved. I am pleased that he made that statement for in view of it no one will question our position in opposition. With reference to the position of labor that Mr. Frederick has well stated,—the question here is not one of difference between physicians and the aims of labor, it is a question of whether this bill will remove the hazard or will create a worse one.

"Unlike social security legislation, may I point out that all the rest of it pays cash,—this one pays in terms of service altogether. Now, those covered by this bill are all employed manual labor regardless of their income; secondly, all nonmanual labor earning $60 a week or less, which means $3,120 a year; and all dependents of those persons, meaning the spouse and the family,—children, if any. The director, however, may by rule designate additional dependents,—the father, the mother, brother or sister, if in fact they are dependent on his income and living in his household. That which is exempted from the bill is farm labor, the farmers; casual labor, and domestic help where the number employed is less than four."

How Many Covered

"The question arises, of course, how many are covered in the bill, and on that I have a tabulation, Mr. Chairman, which I will explain very briefly. The great difference between my figures and Mr. Biemiller's is because of the fact—Mr. Biemiller—that when you see the Social Security figures as of a recent date, it is the estimate of the best statisticians in the state service that only two

thirds of those who will be covered by the Social Security Act were covered as of that date. In other words, the estimated total number of persons gainfully employed in Wisconsin at this time is 1,225,000; and then comes our deductions. First, the estimated number of agricultural workers and domestic workers in private homes, 340,000; second, for the federal employees, because they do not come under the terms of this bill, 54,000; third, for the employees of the state, municipal corporations and quasi-municipal corporations, because all of them, regardless of their income, are exempt and do not come under the terms of this bill, 50,000; and then those gainfully employed, who are employed we will say spasmodically and not in fact gainfully employed as this bill provides, 71,000; and then an estimated miscellaneous number of people who are independent contractors, 5,000, or a total deduction of 520,000, leaving an estimated net total of persons gainfully employed in Wisconsin and eligible to the benefits of this bill of 705,000,—increasing the data you gave me by approximately one third. That figure is supported by the chief statistician of the Commission. The estimated total number of dependents eligible to health benefits of the bill is 940,000, and that is by terms of the Industrial Commission formula of one and one third dependents per covered person. This gives us a total of 1,645,000 of this State.

"The total population of the State on July 1 was 2,908,000, and on that basis this measure proposes to render medical service benefits to a little better than 56 per cent of the population. Now, the question comes: How much will we raise under the tax and payroll deductions? And my figures are identical with yours, Mr. Biemiller, because the 4 per cent pay-roll tax under the Social Security Act for the complete pay rolls we find is slightly under $27,000,000 that will be raised; $26,930,000 is as close as we can approximate it. It is also to be noted that this tax becomes effective January first next, but the benefits do not become effective until April 1. In other words, the provision is set on there to accumulate a checkbook balance of some $6,000,000."

Are Funds Sufficient

"The next question is: Are these funds sufficient? On that, fortunately, we have some reasonably reliable figures, at least for the minimum cost. In other words, the President's Committee on Economic Security, to which Mr. Biemiller referred, when studying this subject of whether we should have compulsory sickness insurance in this country for the whole population earning under $3,000, and that is very closely approximating the terms of this bill, figured out what it would cost to have general practitioner service, service when specialists are required, dentistry, graduate nurses, practical nurses, hospital service, medical commodities that are prescribed, the x-ray, and then what would be the cost of administration and how much would be set up as a reserve to meet epidemic conditions. We find, using their figures, that the total amount that would be required as a minimum,—in other words, taking the figures of the proponents of the bill, of this type of legislation, who presumably are not figuring anything more than is needful, that service would cost a minimum of $20.02 per person. On this basis the bill requires—including just 10 per cent for administration and just 5 per cent for reserve—approximately $20 per covered person; and you multiply that by the 1,645,000 that are covered and you have a tax collection that would be required to give the service that the bill itself expressly specifies of $32,900,000. In other words, while the actual tax collection would be about $27,000,000, the cost would be $33,000,000, and your bill falls short at once by 20 per cent of the actual cost of doing that which the bill says it will do for the people who are under it.

"I would like to say further that that is based on an administrative cost of 10 per cent. From my own experience I know that administrative costs of relief at times are much higher than that, although far fewer people were covered. Here we have something that involves individual service to individual people. There must be checks to protect the State and the proper interests of all who are covered under the bill, and I would doubt very much whether 10 per cent

would come anywhere near covering administrative costs. Please note there is no provision in the bill limiting administrative costs. Furthermore, in England the administrative costs there are 14.9 per cent. If this is so, obviously the immediate deficit would be far greater than that I previously mentioned."

Who Will Govern Service

"May I turn for a moment to the subject of medical service. That is what this bill provides, and I note it is stated, Mr. Chairman, by all who advocate this legislation that what they are trying to do is to spread the monetary costs and merely change the form of paying for medical service. Unfortunately, under this type of legislation that is never possible, and to the extent that it isn't possible there are certain matters here that I would like to point out to you. First of all, the reference to the State Board of Health on page 14 might be misleading, for a careful analysis of the bill discloses that the Division is *not* under the control of the State Board of Health. The budget of the State Board of Health takes up about $200,000, and this Division of it would have a budget of $27,000,000, and I think the State Board of Health would be quite dwarfed by the bill.

"Second, the director is appointed by representatives of employers, insured, dentists, physicians, pharmacists, hospitals and the general public, the number not specified. How many are to be appointed by the Governor is not stipulated, except that there shall be equal representation of each group. It is also provided this Council should be appointed within ninety days from the date of the act, and thereafter they appoint a director. Just how the Governor is going to jump the hurdle and know what people elect to come under the act before the act is in operation and before the director announces the nature of the act, I don't know. But assume the Governor has jumped that hurdle and the Council appoints the director. Now, note, there are no qualifications for this director. He is to administer an act that collects $27,000,000, and returns service benefits with medical, hospital and dental care to 1,645,000 people of this State, his powers are nearly all-inclusive, and yet there is not one word in this bill as to what his qualifications shall be. On the contrary, we find that on page 22, in section 165.17, the appointment of everyone under the act, with the exception pretty much only of the stenographic and statistical force, is exempt from all civil service laws of the State.

"I want to make it perfectly plain that the bill does provide for the appointment of a medical officer from a list submitted by the State Medical Society of Wisconsin, but to use the language of the bill his power is to 'advise and assist.' Now, it may be said that part of the bill on page 23 in lines 1 to 9, that says he has power to set minimum standards, is effective, but actually he is solely responsible to the director that appoints him, and he holds his office at the pleasure of that director."

Powers of Director

"Now, let's look at the powers of this director, and I am looking at them now not in terms of his administrative power; I am looking at them in respect to his power to control the type of medical service that these people, having paid 2 per cent of their wage, must rely upon under the terms of this act. In the first place, on page 8, line 166, with the approval of the state council he shall prescribe fair and reasonable regulations with reference to the health benefits; and on the same page in line 171, he shall determine as to who requires benefits subsequent to the last day of the periods, and whether the illness is or is not chronic, and decide whether it will or will not result in permanent incapacity,—and upon his decision rests the ability of these people to have continuing benefits after their first twenty-six weeks of benefits have passed. Now, on the same page at lines 175 to 180, this director, with the consent of the state health insurance council, has the power to increase or decrease the amount and the duration of medical, dental and hospital care, and other benefits provided by this chapter, whenever the condition of the fund allows or makes necessary such change.

"Now, then, gentlemen, look at the position of your advisory council. The fund only

provides for 80 per cent of the cost, to start with. Let's take the figures of the proponents. Obviously, if the director proposes that they must peal down the service in one place and dilute it in another, they have nothing to do except consent, because they must stay within that appropriation that they got from their tax. There is no other appropriation made.

"The powers of this director are so extensive that it takes all of page 15, all of page 16, and half of page 17 to enumerate them. The director alone determines what offices shall be established, how much personnel shall be needed, who they should be, and where they shall be located.

"I further call your attention to the fact that on page 15, while it is said this does not affect medical service, please note that the director has power to make such arrangements as may be necessary for the provision of medical and dental services, hospital care, drugs and other services and commodities authorized to be provided under this chapter; and so far as he may deem necessary, to enter into contracts with individuals or organizations and all others who may be in a position to provide benefits.

"I want to say, gentlemen, that the director has the power not only to direct who will give the service and what service they will give, but he has the power to remove them. The physician, the dentist, and the hospital that fails to do all the paper work in the amount that this type of legislation actually requires may be removed by the director as he sees fit, not because he isn't a good physician,—not because it isn't a good hospital, —not because he isn't a praiseworthy dentist, but because he isn't making the reports that are required. I want to say from our experience, on some of these government projects that I have seen, the reports that are required are so voluminous that if a physician had much of that practice he would have to have an extra stenographer to make them, and I doubt even then that he could.

"I would like to skip the inequalities in the bill. But I must call your attention to the fact that we are not here dealing with an insurance principle as found in unemployment compensation. For instance, here is a young man earning a salary of $60 a week, and he has no dependents. Now, 2 per cent contribution of his annual salary is $62.40, or for a six months' period is $31.20. Now, at the extreme opposite end—I am taking both extremes—here is a man who has a wife and four children; he works only the minimum of the twenty hours provided under the bill, and he may have only worked four weeks of the preceding twenty-six as is provided under the bill,—and assume his wage rate is, say, 40 cents an hour. He has paid out of his wages during that time 64 cents. Now, this means a disparity of about 48 to 1 between the single individual and the married man cited in the example. The disparity in contribution is serious enough, but go one step further and the disparity in the service received is far greater, for the single man may need none and the others may have all the service for six people for twenty-six weeks.

"I want to suggest that a bill containing as great an inequality as that is not an insurance bill; it is an income tax bill on people of moderate income to take care of the poor, and I think if you take the income tax principle you should carry all the way through and tax all."

Injects a Third Party

"This bill plainly injects a third party between the physician and the patient, and this third party will probably be not one but a group of laymen. They hold in their hands the right to say what the physician, the hospital, the dentist and the nurse may or may not do for that given patient. This is something that cannot be written out of the bill, it is inherent in the system,—and medicine cannot agree with that principle, it thinks it is wrong. Secondly, these people who give the service and try to give the best they know how are to operate under restrictions of service. Take, for example, that on page 6 in line 116,—it is said that the hospital accommodations furnished under this bill shall be those ordinarily furnished by a hospital at the lowest per diem rate.

"Now, here is a case of pneumonia, here is a case of life at stake; and a physician and a hospital and anyone who knows anything about the case knows he should have a pri-

vate room and oxygen service. I submit that in an effort to standardize the fee, you are standardizing the service for individual needs in illness; and nothing is so individual as the needs of a sick man. That again is a principle that medicine knows is wrong and will not operate in the public interest.

"Third, it has been said that free choice of physician and hospital and dentist and nurse exists under the terms of the bill, but I would like to say that only to the extent that these people are willing to work under the terms of the bill, only to the extent that they are permitted to work under the terms of the bill, and under the direction of the director. And please note that he has the power to hold a hearing, he isn't confined in holding that hearing to common law or to the statutes; and upon his determination out they go, and the only court review for that is on the law, not on the facts."

Not Free Choice

"Now, I say when you have this situation, your patient hasn't any free choice and he can't have free choice. We saw it in Wisconsin under poor relief, when a patient's family physician had moved away from him a few miles and there is someone nearer. Will they pay the additional cost for the family physician? No, he must take the one closest to him. Those things are inherent in the system.

"Within the last week in my own family I had an emergency,—two of them, and in each case it required the services of a specialist; and in both cases there may be applied the statement made by one of the leading physicians in this country. He said: 'Changes in the patient's condition frequently appear so quickly and the period in which favorable action is possible is so brief that life may truly hang by a slender thread.' I recognize that I need the services of someone to come and care for the ear, and am immediately at liberty to call in a physician. But at this stage under the bill there have to be safeguards on the system. The result is that you have to call your general physician first, and obtain the approval of someone and perhaps a layman before you get your specialist service.

"In conclusion may I quote from a report of the Committee on the Costs of Medical Care, so frequently cited by advocates of this legislation. They said:

> " 'It is probably true that in the United States, except for some rural areas, a much larger amount of medical service is available and is actually obtained even by low-wage earners than was the case in any European country during the period when its health insurance system was developing.
>
> " 'Good service to the sick is worth what it costs; poor service is likely to be worth little or nothing,' says the report.
>
> " 'Now, in the main, these foreign systems of compulsory health insurance have furnished a medical service limited in scope and deficient in quality. America need not follow their mistakes, either in policy or method.' "

Wisconsin Health Record

"Finally I want to say that in Wisconsin today we have a health record of which we may be very proud. Our state health officer, who is sitting over there, said two years ago that if the disease rate of 1910 for preventable diseases maintained today, it would cost us $26,000,000 this year that we don't have to spend.

"England has compulsory sickness insurance. Her maternal mortality is 6.4; ours is 3.7. Germany has compulsory sickness insurance. In 1933, the last year for which we have figures, her figure on tuberculosis deaths was 65.6; and for the same year ours was 40.1, and now 34.8. Germany, England, Wales, and Denmark have sickness insurance. In 1934 their infant mortality per thousand live births was 66, 59 and 64, respectively; one year later than that Wisconsin's infant mortality was 46, pretty nearly 20 points lower.

"Now, one of the claims for sickness insurance is for work done in the field of prevention. I want anyone to show me a single operating country under a system of sickness insurance that has a diphtheria rate as low

as that in Wisconsin today, where it is but .36 per 100,000 population in 1935.

"Wisconsin, Mr. Chairman, leads all east-north-central states in life expectancy, and the boy born this afternoon has a life expectancy of 61½ years, and the girl 64.66.

"In the words of the Citizens' Committee on Public Welfare, in its subcommittee report on health, 'Our program is not that of instituting a new system but an effort by perfection to carry forward the present work to still greater heights of progress.' And they finally tell us that errors in judgment at this point might not only defeat the purpose of carrying forward to higher standards, but might well bring about actual retrogression. It is the considered opinion of the profession in this State that this program is not an error in purpose but is a grave error in judgment.

"If I can answer any questions, I will be glad to do so."

Chairman Kiefer: "Any questions to be asked Mr. Crownhart?"

Mr. Biemiller: "There is one point I would like to raise. You agree that the proposed administration of this bill is a simpler system than the English system?"

Mr. Crownhart: "Yes, because there are not the cash benefits involved."

Mr. Biemiller: "There is also the whole question we are trying to avoid of the Friendly Society in England."

Mr. Crownhart: "That is true."

Mr. Biemiller: "That provision you would agree with,—that aspect?"

Mr. Crownhart: "Yes."

Mr. Biemiller: "I still disagree with you on the figures as to the amount of people it would cover."

(Discussion between Mr. Crownhart and Mr. Biemiller, of which only small portions were audible to the reporter.)

Mr. Biemiller: "You said that with proper safeguards you thought a cash benefit would have more merit than the medical service benefits."

Mr. Crownhart: "I said one that would provide solely in cash, under insurance regulations, in which the patient was left free to do with his cash as he saw fit in the purchase of his medical benefits."

Mr. Biemiller: "Suppose a substitute amendment came in with cash benefits, would you think that the Medical Society would be interested in such a bill?"

Mr. Crownhart: "Mr. Biemiller, we had a special meeting of the House of Delegates in order to consider this legislation. I wouldn't feel that a bill that completely changed it would be one on which I could stand up and say right at the moment, 'Yes. Certainly we would be interested.'

Mr. Biemiller: "I appreciate you can't commit yourself."

Chairman Kiefer: "Any other questions to be asked Mr. George Crownhart?"

Mr. Crownhart: "I thank you."

Mr. George Ballhorn

(Christian Science Committee on Publication)

Mr. George Ballhorn: "George Ballhorn of Milwaukee, appearing on behalf of the Christian Science Committee on Publication of the state of Wisconsin. Mr. Chairman and members of the committee: It is not difficult to conceive that high-minded and right-living men and women may very readily differ on questions of economics, politics and social problems, but I submit that one right which is, to an American, an inherent right is the right to worship according to the dictates of his own conscience. In fact, if that were not an inherent right, and inherent in the philosophy of America, it is doubtful whether you and I would be here today as citizens of this country.

"My appearance here, members of the committee, is on behalf of the Christian Science Committee on Publication, which speaks for the members of the Christian Science Church in Wisconsin,—men and women who have as a matter of conscience accepted the philosophy of Christian Science, and part of that philosophy is the treatment of disease by spiritual means.

"Now, Christian Scientists are inclined to the idea, upon reading this measure which is under discussion, that it is not only an invasion of their sacred rights, but that if this bill should become a law this legislature will have broken faith with the people of Wiscon-

sin who have by the laws now on the statute books guaranteed, in definite and specific provisions, Christian Scientists the right of treatment by mental or spiritual means, and the right which this proposed measure entirely ignores,—and may I say in all fairness to the author of this bill, I do not believe for a moment that that thought was in his mind when the bill was drafted.

"It has been the fixed public policy in Wisconsin for a period of many years that the right of Christian Scientists to select their own form of treatment shall not be interfered with, and to adopt this bill would do violence to the guaranty of freedom of action on the part of this group of Wisconsin citizens, this right which has been accorded to them by previous legislatures of Wisconsin.

"Now, on this matter of public policy to which I have referred, and of course public policy is fixed by the attitude of the legislature upon specific problems, may I direct the committee's attention to the fact that Wisconsin has not only been tolerant on this matter, it has been liberal, and it has treated the members of the Christian Science faith with probably a greater degree of fairness than obtains in many of the other states. This is the broad fundamental statute which the legislature of Wisconsin passed many years ago, and which in every session of the legislature since has been respected by that honorable body,—and this is the statute, it is part of the chapter referring to the treatment of the sick, it is 147.19:

> " 'None of the provisions of this chapter or the laws of the State regulating the practice of medicine or healing shall be construed to interfer with the practice of Christian Science, or with any person who administers to or treats the sick or suffering by mental or spiritual means.'

"Further, the Legislature of Wisconsin has stated that:

> " 'Nor shall any person who selects such treatment for the cure of disease be compelled to submit to any form of medical treatment.'

"That is the declared public policy of the state of Wisconsin, upon which the members of this faith have relied for a period of years. The statute, part of the same section, to which I should also like to direct your attention, is as follows:

> " 'Nothing in the statutes shall be construed to authorize interference'—mark the word, if you please—'interference with the individual's right to select his own physician or mode of treatment.'

"That same section appears in a number of special statutes. May I also call the attention of this committee, as protectors of the rights of the men and women who as I have said have selected this philosophy as a matter of conscience,—may I direct your attention to the fact that under the Workmen's Compensation Act an injured workman is entitled to Christian Science treatment in the same manner as he is to medical treatment if he selects to have it, and his employer is compelled and obliged to pay the expenses."

Manifestly Unfair

"Now, I have referred to those statutes as indicative of the public policy of Wisconsin, and the question that has arisen in the minds of the men and women for whom I speak is whether that public policy is to be changed, whether rights, which to them are sacred, shall be revoked, in fact abandoned. Now, it may very well be suggested that after all a Christian Scientist, if this act becomes a law, may be obliged to accept this form of treatment. Then if he isn't, then a very large group of working people in the state of Wisconsin are going to be called upon to accept a tax burden and then pay for such treatment as they select. We think that that is obviously and manifestly unfair.

"I notice too in reading this bill that there is no provision whatever that any of its employees, any of the staff created, or any of the board or department, are subject to civil service; and I am just wondering, as a citizen of Wisconsin, whether it is wise policy to create what will probably be a very large department,—"

Mr. Biemiller: "May I interrupt there to say that under the statutes of the state of

Wisconsin, everyone comes under civil service unless specifically exempted,—they will come under civil service."

Mr. Ballhorn: "I think it will be well to clarify that."

Mr. Biemiller: "In the drafting room they decided not to."

Mr. Ballhorn: "I thought in fairness it would be well to call your attention to it, because you are preparing to spend money of the people of the state of Wisconsin,—somebody says twenty-five million and somebody says thirty-two million. Take either figure and it is a lot of money; and if this large organization is to be set up, at least the people who provide the funds should be safeguarded in its administration by civil service rules."

Chairman Kiefer: "I have been told, on the question of civil service, that unless specifically exempted it includes civil service."

Mr. Ballhorn: "If the committee is entirely satisfied on that, probably my comment has no value; but I do say where you are dealing with such a large matter, and with disbursement of such tremendous sums of money, it ought not to be left open to doubt."

Mr. Biemiller: "I wouldn't let them draft a bill any other way, unless I was sure."

Mr. Ballhorn: "There is another feature of this bill,—Mr. Crownhart dealt with it very briefly—and that is that there is reposed in this medical director very broad discretionary and I might say arbitrary powers. Now, it may be that some of these modern problems require the creating of additional offices, commissions, etc.,—I am not saying that it isn't necessary; but as Mr. Crownhart indicated, the decision of this director, which goes to the very essence of the life of the individual, on every question of fact is final and complete, and from it there is no appeal. Now, I am just wondering whether it would be the part of wisdom on the part of this legislature to vest in any man;—I don't care how well-intentioned he might be; I don't care what his experience might be; I don't care with what vision he might be possessed; —the ultimate and final and unchangeable decision in your life and mine, and well-being. I don't think as a matter of policy it is wise; I can't see that it is good judgment, and I don't think it is good for the people of Wisconsin that any authority should be vested with that absolute, final and complete power."

Sacred Rights

"Men make mistakes that may be perfectly honest, maybe mistakes of judgment. I am assuming that if this bill becomes a law and a director is appointed, he will do the very best he can; but he is still human and may make mistakes, and I don't believe it is well for the people of Wisconsin to allow any one man of any one commission power and authority which affects the sacred rights of individuals, without at least the right of appeal.

"Now, Mr. Chairman, on behalf of the group for whom I speak, I have endeavored to make a brief analysis of the measure which we have been discussing, a discussion of the advantages and disadvantages of this bill; and I should like to leave this memorandum with you to read, if I may.

"And may I say to you, Mr. Chairman, while there are quite a number of folks here intersted in this measure, I am sure we would be very glad to have them register their opposition to this measure. I thank the committee for their kind attention."

Dr. G. W. Wilson

(Wisconsin State Dental Society)

Dr. G. W. Wilson: "Representing the Wisconsin State Dental Society. It has often been said what happens to medicine happens to dentistry also, and I can say now that whatever has been said by Mr. Crownhart representing their group I would like to go on record as concurring in that for my Society. With all due respects, I have observed that our profession is in this picture in a very minor way, and I can't see the reason for it. There is just one line that states: 'Extractions and other dental care of an emergency nature.' "

More Dental Service

"Now, I believe that there should be provision made for more service than that, be-

cause I think that our professional services are of more value than that. I can't see why we should be in the picture in that way, because in the cost of $20 a year about one dollar would be for dentistry; and I think we are worth more than that. I would like not to take your time any longer, but I would like at some time,—in fact I am going to do it now, it will just take one or two seconds,—if there is to be a compulsory insurance health plan at any time, or any other plan, our profession wants to go on record in favor of additional dental service. I would like to go on record in that respect for our profession, because when we do this thing or when we do anything, we feel as a medical group we want to do it well; and if we have to do it badly, we would rather not do it at all. So we want to do whatever we do and do it well, and we are not particular about being in the picture at all unless we can be in there in proper measure."

Chairman Kiefer: "I wish to say for the committee, I think you will all agree that we have been very, very patient and very, very liberal in the matter of time; and we would suggest at this time, unless there is someone that has something additional to offer, we would like those who appear either for or against this bill to simply register. We don't want to shut off discussion or debate, but we do have to observe some time limit."

Mr. Biemiller: "I think if the time hasn't elapsed, I would like the indulgence of the committee for about five minutes and no longer, to have Mr. Maslow present some material on administrative costs."

Chairman Kiefer: "If he will confine himself to five minutes, as you say, we will take a chance."

Harold Maslow

(Graduate Student in Economics, University of Wisconsin)

Mr. Maslow: "I can speak right from here."

Chairman Kiefer: "Maybe we could all hear you better if you were here."

Mr. Maslow: "I just simply want to make the point that Mr. Crownhart brought up about administrative costs. Now, it is perfectly true that in Europe the cost is 15 per cent, but I submit to you that our bill has been very specifically drafted to avoid some of the administrative difficulties that we have heard about. For example, we have cut out this duplication of Friendly Societies; we have cut out cash benefits, and as a result—of course, it is hard to make any sort of a definite statement, but probably the administrative costs of this bill would be about 8 per cent. In Europe the administrative costs range anywheres from 8 to 15 per cent."

Hospital Wouldn't Benefit

"And if Mr. Kiefer will allow me, I would like to make one more point. Mr. Crownhart brought up the point, very justly too, that the hospital wouldn't benefit, because providing the lowest possible cost per diem rate, and that would be very bad in certain cases, emergency cases. Well, of course, that is perfectly true, and I really think they would slip. But I want to make this point plain: that when you draft a bill of this nature it is absolutely impossible to make any specific statements.

"Now, there are hospital benefits, nursing benefits, specialist benefits, general practitioner benefits and dental benefits. Now, if we were to define them exactly, this bill would probably end up by being a 125-page bill. Now, that is of course impossible. What we did here was just simply make the simple statement of each type of benefit which the health insurance bill was to provide, and we intend to leave the rest of it to the regulations of the committee which might be fifty pages or more.

It is very obvious that anybody that knows much about unemployment insurance, of course, will realize that although the act on the statutes has I think about ten or twelve pages to it, there are probably fifty or sixty pages of regulations for the actual administration of the system. It is just simply a problem of bill-drafting and of administration; and I agree entirely with the position of the State Dental Society man, and that might be included under this general system.

Specialist Care

"There is one other point which I would like to make, and that is the point brought up

about the $60 a week unmarried individual who will probably pay about $60 a year, I think, and of course wouldn't receive that much benefit probably. Well, we think that is one of the best features of the bill, and again we have the European experience in mind. Now, England and Germany, for example, have a maximum coverage of $1,200 per year. We raised it to $3,000, because we wanted to avoid the sort of thing that Mr. Crownhart thinks happened in Europe,—and it did happen to a certain extent, but not for the reasons that Mr. Crownhart thinks. That is the question of lowered standards. Now, it is obvious that if you have a $1,200 maximum there won't be enough funds for hospital and specialist care. You have no specialist care nor hospital care in Great Britain. We want to raise that maximum to $3,000 a year, just so we can have a better system and so we can have those extra services they haven't got abroad."

Arlene Holst

(Wisconsin Anti-Vivisection Society)

Mrs. Arlene Holst: "I represent the Wisconsin Anti-Vivisection Society, Mrs. Arlene Holst. We are opposed to being taxed on our money to set up bureaucracy in our State, and I strongly object to it."

Mr. Biemiller: "That is beside the point."

Chairman Kiefer: "Does anyone wish to register for or against? If so, they may do so with the clerk. In the meantime, you may consider the hearing on 852 closed."

Interim Committee Bill Testimony

MR. BIEMILLER, the author of the bill to provide for an interim committee of the legislature to investigate "the general subject of cost of medical care and the ways and means of lightening the burden thereof," was heard before the Assembly Committee on Public Welfare on the same afternoon as Mr. Biemiller's bill to establish compulsory sickness insurance.

This bill is almost identical to the bill introduced at the 1935 session by Senator Harold Groves, of Madison. Mr. Biemiller, the author, was the first to urge passage of this bill. The transcript of the testimony presented to the Committee on Public Welfare follows. Subsequently the committee reported this bill for killing by a 4 to 2 vote.

Bill No. 661, A

Mr. Biemiller

(Member of the Committee on Public Welfare—Author of the Bill)

Mr. Biemiller: "Mr. Chairman and members of the Committee: Bill 661 asks that an interim committee be established by the legislature consisting of two senators and three assemblymen and two citizens to be appointed by the Governor, to investigate thoroughly the entire situation regarding the cost of medical care in the state of Wisconsin. The bill further provides the facilities of all state departments necessary for such a study should be made fully available to that committee.

"Now, there have been one or two questions raised about this bill to me, by various people, that I want to meet at this time. First of all, I gather even from the criticism of the form in which the present bill is drawn that they are aware that there is some need for study or investigation of conditions as they now confront us. The objections that have been made are mainly on the basis of the appropriation which is involved, the sum of $3,000, the claim being that that sum is not sufficient.

"First of all, let me say that I am perfectly willing, if the legislature agrees, to appropriate a larger sum. However, I do not believe a larger sum is necessary, in view of two things. In the first place, as I stated earlier, the various departments of the state government are ordered by this bill to give their full cooperation, which means that certain kinds of work may be made with the normal setup of the state government. In the second place, I think it is entirely possible that

we should get a fairly good-sized W.P.A. appropriation to aid the work of this committee. Harry Hopkins is on record in public addresses, saying he thought one of the most pressing needs of today was a thorough study of health conditions in the United States; and I am convinced if this bill should become a law we could go to the W.P.A. and obtain from them a great deal of assistance in the type of work that would have to be done.

"Another type of objection that has been raised,—a lot of people say, 'Well, you have got a lot of health bills in anyhow, you seem to know what you think about this situation, why do you want an interim committee?' My answer to that is this: that if any or all the bills I have presented before the legislature dealing with health legislation should pass, then the interim committee would have the task of checking up on how those bills operate and coming back with further recommendations to the next session of the legislature; if the bills by some strange freak of fortune should not pass, in that case then again the need of this committee is obvious to study the conditions and make recommendations to the next session of the legislature.

"I think that is all the testimony I have to offer, unless some committee members want to ask some questions."

Chairman Kiefer: "Any questions? On the matter of questions, a rather unpleasant situation arose at one of our former hearings in which we permitted questions, which developed into a cross-examination. Now, if you have any questions to ask any of the speakers, just hold them in abeyance until the speaker is through. Is there anyone else appearing in favor of bill 661?"

Mr. J. F. Frederick

(Representing Federated Trades Council of Milwaukee)

Mr. J. F. Frederick: "I am J. F. Frederick, representing the Federated Trades Council of Milwaukee, which is the central organization of all the labor unions affiliated with the American Federation of Labor and which has a membership of between 65 and 70,000 organized workers. I am appearing in favor of this bill, on the instructions of the Federated Trades Council, because we believe that a study of the health conditions in this State as well as in the Nation as a whole is sorely needed. I think I needn't take any more time of the committee in stressing this matter since Assemblyman Biemiller has given you the reasons why such committee should be appointed, and we fully support that."

Chairman Kiefer: "Any other in favor of 661? Anyone appearing against 661?"

Mr. J. G. Crownhart

(Secretary, State Medical Society of Wisconsin)

Mr. J. G. Crownhart: "Mr. Chairman and members of the Committee: I am George Crownhart, secretary of the State Medical Society. I would like to make my appearance very clear. I am appearing against the bill; I am not appearing against the study, in the event that the legislature feels that it is needful and the people who conduct it are going to be sufficiently skilled to make a thorough study and of course, if the study is adequate.

"If you will take the present bill you will find that it is creating an interim committee consisting of two senators and three asemblymen, plus two citizens appointed by the Governor. Now, it seems to me that, first of all, when we are dealing with the most technical subject of what will and what will not promote the health of substantially three million citizens of this State, it is basic to have a committee that is as well qualified as is possible, to make that study for health is indeed a most technical field.

"In section 2, it is provided that the committee shall investigate the ways and means of lightening this burden. I am rather inclined to believe—whether it was meant or not—that this prejudges the matter for investigation. It commits the legislature and commits the committee to the thesis that the cost of medical care is now unnecessarily high. Secondly, the subject this committee is going to investigate is one of the broadest subjects by the terms of the resolution, Mr. Chairman, that any committee of this legislature can study. It is going to require some very detailed study. The Citizens' Committee, of which I had the honor to be a member, worked for a year. Part of the time as

chairman of the Subcommittee on Health and Disability, I had some experience in studying this subject of health."

Basic Information Required

"I want to say that this committee must have some basic information before it can make any recommendations. In the case of a physician, they must know the cost of his education in time and money up to the moment he enters practice; they must know something, at least, about the cost of equipment, cost of additional equipment he must have from time to time, in order to render the newer service that should be available to his people, and of replacement costs; they must have some idea of the probable duration of his earning capacity, the gross income that he receives, having in mind his specialty, his years of practice, where he is located, his operating expense; his mileage costs; what expense is necessary for postgraduate education in order that he may be kept abreast of the times; and finally the net income and how that compares with the expectancy he has in which to secure some return on his long period of education. In the case of a hospital, certainly that enters most vitally into this picture. They must have again the cost of physical plant, and equipment, cost of capital expenditures for upkeep, the probable life of the plant, the gross income, to what extent the community itself raises the cost of hospitalization by refusing to cover the actual cost for care of the indigent; the gross operating expenses; after insurance, repairs, service and supplies, the net income or difference if any, and, on the whole, in this State it is nothing. Then there must be, somewhere along the line, some sort of historical review of this subject. If you are going to make a determination of whether costs are indeed burdensome, then you must go back for at least twenty-five years; certainly it would be preferable to have a study that would go back approximately fifty years to determine how the cost of medicine has increased during that period, and if so what relation that has to increased wages and other factors that enter into this whole picture. Now, the same sort of study will have to be made for dentistry and for drugs, because I assume the term 'medical service' is more inclusive than just physicians and hospitals. I think until the committee has all this background it will not be in a position to make any of the determination it is charged to make."

Analysis of Bill

"I call the attention of the author to section 3, line 3. The figure '1937' must be an obvious error. I think that he means '1939'. He doesn't intend the committee to report to this session of the legislature.

"In section 4 it is provided in lines 1 and 2 that this committee is to receive no compensation for services. Now, again, out of my own experience on this Committee [*Ed. Note —Citizens' Committee on Public Welfare*], I was in a position to give most liberally of my time, the Society released me for it; but I know that this will be a tremendous undertaking for a group of men to assume without compensation. Here is a subject matter, as I said at the beginning, that deals with the lives of close to three million Wisconsin citizens, and under section 3 of the bill it is presupposed they are going to make a recommendation for legislation affecting their lives. Now, I don't think each man should be required to serve the weeks upon weeks that it is going to be necessary that they serve, without some compensation other than travelling expenses.

"Lines 3 to 5 say the committee may employ stenographic and other assistants it may deem necessary. But as Mr. Biemiller says, the total appropriation is $3,000, and that is to include printing the report. If I may again refer to the Citizens' Committee, you have a bill before you to appropriate $2,500 to print that report; and assuming this report was far less expensive than that—which is something I am not willing to assume, it would cost at least $1,500 of the total appropriation to print the report. I am sure that is a fair estimate. Now, that money would have to be put aside, and the balance that is left would be all that would be available to hire the stenographic and other assistants and pay expenses.

"The power of subpoena in section 6 is not limited to material that is pertaining to the

A Vacation Hazard

● The summer traveler or camper frequently accepts chances of infection by *Endamoeba histolytica.* Unguarded water supplies, food prepared by unknown hands, the unavoidable presence of the housefly—all contribute to the possibility of ingestion of the cysts of this organism.

Throughout the year the physician has many occasions to consider amebiasis in the differential diagnosis, inasmuch as 5 percent to 10 percent of the population of the United States is infected. The symptoms of amebic infestation are protean and suggestive of a variety of diseases of different etiologies.

Carbarsone, Lilly (p-carbamino phenyl arsonic acid), is effective in treatment, is of low toxicity, and is usually successful without supplementary medication. It may be given orally in capsules or tablets, or it may be administered by retention enema. Supplied in 0.25-Gm. pulvules; in 0.05-Gm. and 0.25-Gm. tablets; in boxes of six 2-Gm. vials; and in one-ounce bottles.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

investigation, and there is no provision; but I am sure the author himself will agree that one is necessary,—that case histories, disclosing the medical status of given patients, might not be disclosed if in a public hearing.

"Finally, the author suggested that W.P.A. assistance would be available. It was available to the Citizens' Committee on Public Welfare. But I want to point out that from those rolls, and increasingly in the future as our employment continues upward, it is hard if not impossible to obtain skilled help; and here is a subject on which you not only need skilled help in the sense of people of University background, but skilled help in the sense of particular service in sociology and in the field of medical economics. It is my recollection that the Citizens' Committee study, including the W.P.A. help, cost in the neighborhood of around $45,000.

"Now, I would conclude, Mr. Chairman, by saying that if the legislature feels that—and the committee feels that this study is needful—that it will be socially useful, that it will be made-up by an adequate personnel adequately financed, and that no one would be permitted to serve who had preconceived ideas on the subject or had already reached conclusions in the field of that study, then, I assure you, that it is the position of the State Medical Society and of the Wisconsin Hospital Association, that both organizations will give this committee every fact that is in their possession. And I wish to emphasize again that that is going to require time. Let me say that just on the subject of compulsory insurance we are prepared to present data before the committee that would require someone from 10 to 20 days to present.

"Thank you, Mr. Kiefer. If there are any questions I can answer, I will be glad to answer them."

Chairman Kiefer: "May I ask you something? You point out the reference to costs in this bill and take the position that there is no question,—there is some question about the burden of the cost of medical care, I don't think there is any question about that. I mean to say that a good many people would avail themselves of medical care in the treatment of disease and hospitalization if they only—who ought to be in bed, but they are not there because they haven't the funds."

Mr. Crownhart: "That is why I said, Mr. Chairman, I leave the question of that entirely to this committee of the legislature. I can only respond that so far as I know, no one goes to a physician that is not given care; and so far as I know, I have never heard of a hospital turning away a patient."

Chairman Kiefer: "Did I understand your remarks in such a way that makes them [*Ed. Note—State Medical Society of Wisconsin and Wisconsin Hospital Association*] feel there is no situation there that should be corrected?"

Mr. Crownhart: "I didn't mean that."

Chairman Kiefer: "That is the necessary part, that is necessary too."

Mr. Crownhart: "I think that might be so with reference to many things, Mr. Kiefer. Obviously, in the small rural communities the small community hospital can't possibly afford nor could the State afford to give the same service that can be given in the city of Chicago. That isn't all the costs."

Chairman Kiefer: "May I ask another question? Don't you think that section 5 here, where it says, 'All state departments, and particularly the legislative reference library, the State Board of Health, and the University, shall assist the committee,'—don't you think the committee will be able to get efficiently trained help to assist them in every phase of this bill?"

Mr. Crownhart: "I do not, Mr. Kiefer, for the reason that we had that same situation with reference to the Citizens' Committee. The Governor informed us at our initial meeting anything we wanted in the State would be at our disposal. They were perfectly willing to come in and appear before the committee, but their personnel is already so limited and already so full of the tasks they have to do for their departments that they can't actually loan help, technical skilled personnel, to any other group. I am basing that only on my own experience."

Mr. Biemiller: "May I ask you what your opinion would be on the cost?"

Mr. Crownhart: "The Committee on the Cost of Medical Care spent a million dollars

"A supply in the bag; a supply in the office *—always!*"

No physician knows, when he starts his day, what critical situations will confront him. Because this product is essentially an emergency remedy, many physicians make a practice of keeping at hand at all times a supply of Adrenalin Chloride Solution 1:1000 (the Parke-Davis brand of Solution of Epinephrine Hydrochloride U.S.P.).

Medical men and women throughout the world have been relying on the original Parke-Davis product every hour of the day and night for thirty-five years; and the resources and personnel of the Parke, Davis & Co. laboratories of today are pledged to maintain its unvarying dependability. A request will bring the booklet "Adrenalin in Medicine" by return mail.

PARKE MEDICAMENTA VERA *DAVIS*

& COMPANY

Home Offices and Laboratories—Detroit, Michigan

ATLANTA BALTIMORE BOSTON BUFFALO CHICAGO CINCINNATI DALLAS INDIANAPOLIS
KANSAS CITY MINNEAPOLIS NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH
ST. LOUIS SAN FRANCISCO SEATTLE

for five years. Somewhere in the neighborhood of $25,000, as a minimum—perhaps $50,000."

Chairman Kiefer: "Any other questions to ask Mr. Crownhart? Anyone else to appear on 661?"

Dr. G. W. Wilson

(Wisconsin State Dental Society)

Dr. G. W. Wilson: "I am Dr. G. W. Wilson, of the Wisconsin State Dental Society. I am going to save your time by going on record and saying that we favor an adequate and comprehensive study of the costs of dental and general health service, and also the needs of the public in this respect. I want to place our Society on record in favor of this, the personnel of your bill. We appreciate the value of that, we believe it will cost more than $3,000; but the personnel we believe should include some expert technical advisers, probably some men from the professions,—we just have that feeling about it."

Chairman Kiefer: "Anyone else here in favor of the bill? Anyone speaking against the bill? Anyone who wishes to talk one way or the other?

"If not, we will take up bill 707."

VENEREAL DISEASE PROGRAM

(Continued from page 461)

State Board of Health clinics do not see many chancres and open forms of syphilis, and it is the opinion of many of those who specialize that early forms of syphilis are much less common than formerly.

The prospect of increased blood testing in physicians' offices, in hospitals and other groups, and especially in early pregnancy, bodes much for the future control of syphilis and the lessening of the physical damage brought about by it. The vast increase in specimens now sent to both the State Laboratory of Hygiene and the State Psychiatric Institute indicates high interest. The undertaking of such tests is much to the credit and public spirit of the medical profession.

The experience of the English dispensary system and our own statistics in Wisconsin shows that progress can be made against gonorrhea. Any future discovery of a more efficient drug for treatment will greatly aid in the control of that disease.

Plan now to attend the Ninety-Sixth Anniversary Meeting of your State Society in Milwaukee, September 15, 16, and 17.

THE JOURNAL BOOKSHELF

BOOKS RECEIVED FOR REVIEW

Pediatric Dietetics. By N. Thomas Saxl, M.D., associate and lecturer in diseases of children, New York Postgraduate Medical School, Columbia University; assistant attending physician, babies' ward, New York Postgraduate Hospital. Price $7. Philadelphia: Lea & Febiger, 1937.

The Patient and the Weather. By William F. Petersen, M.D., assisted by Margaret E. Milliken, S.M. Volume IV, part 1, Organic Disease. Price $10. Ann Arbor: Edwards Brothers, Inc., 1937.

Surgical Treatment. A practical treatise on the therapy of surgical diseases. By James Peter Warbasse, M.D., special lecturer in the Long Island Medical College; and Calvin Mason Smythe, Jr., M.D., assistant professor of surgery in the University of Pennsylvania, Graduate School of Medicine. In three volumes, second edition, revised and reset. Cloth $35 a set. Philadelphia: W. B. Saunders Company.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Synopsis of Pediatrics. By John Zahorsky, M.D., professor of pediatrics and director of pediatrics, St. Louis University School of Medicine; pediatrician in chief to the St. Mary's group of hospitals; assisted by T. S. Zahorsky, M. D., instructor in pediatrics, St. Louis University School of Medicine, and assistant pediatrician to the St. Mary's group of hospitals. Second edition. Price $4. St. Louis: The C. V. Mosby Company, 1937.

This, the second edition of this little book, is similar to the first (1934), differing from it only by the addition of a moderate amount of new mate-

when a full *night's sleep* is important

DURING illness, or before an operation, sleep is particularly necessary; yet fear and worry often rob the patient of needed rest. In such cases the use of a safe and effective sedative is advisable.

Ipral Calcium has been used for more than twelve years as a safe sedative and hypnotic. It induces a sound, restful sleep closely resembling the normal, from which the patient awakens calm and generally refreshed. Ipral is readily absorbed and rapidly eliminated, its effect being chiefly confined to a selective action on the higher cerebral centers. In therapeutic doses no untoward organic or systemic effects have been reported from its use.

Ipral Calcium (calcium ethylisopropylbarbiturate) is supplied in 2-gr. tablets and in powder form for use as a sedative and hypnotic.

Ipral Sodium (sodium ethylisopropylbarbiturate) is supplied in 2-gr. tablets and capsules for hypnotic use and in 4-gr. tablets for preanesthetic medication.

Tablets Ipral-Aminopyrine (2 gr. Ipral, 2.33 gr. Aminopyrine Squibb) provide both analgesic and sedative effects.

Ipral Calcium (Powder) is available in 1-oz. bottles. Tablets Ipral Calcium 2 gr., Tablets Ipral-Aminopyrine 4.33 gr., Tablets Ipral Sodium 2 gr. and 4 gr. and Capsules Ipral Sodium 2 gr. are available in bottles of 100 and 1000.

For literature address Professional Service Department, 745 Fifth Avenue, New York.

Ipral PRODUCTS

MADE BY E. R. SQUIBB & SONS, MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

rial. It is a pocket-sized volume, well printed, securely bound, and contains eighty illustrations in black and white and nine colored plates. The purpose of this book is to so condense the modern knowledge of pediatrics as to provide the medical student and busy general practitioner with a brief, yet fairly comprehensive, presentation of the most important facts concerned with the health and disease of infants and children. The general field of pediatric subjects is well covered. Unusual as well as commonplace conditions are included in the text. The material is intentionally divided into sixty-one chapters in order to make each chapter suitable for one hour's work in the classroom. Even though the material is boiled down to the smallest possible quantity, the terseness of expression engages the reader's interest and makes the book extremely readable. It is recommended for what it is intended to be—a sort of enlarged guidebook for the medical student, teacher and general practitioner.

J. E. G.

Materia Medica, Toxicology and Pharmacognosy. By William Mansfield, Phar. D., dean and professor of materia medica and toxicology, Union University, Albany College of Pharmacy, Albany N. Y., St. Louis: The C. V. Mosby Company, 1937. Price $6.75.

The first five hundred pages of this book should be of definite value to the student of pharmacy and anyone interested in pharmacognosy. The materia medica is considered in a systematic manner, with concise descriptions and excellent photographic illustrations of the gross characteristics of the crude vegetable and animal drugs.

In the opinion of the reviewer, the author should have been content to limit his appeal to those interested in the above topics. The physician or the pharmacologist will find so many inaccuracies and so little of authority in the last one hundred pages, devoted to toxicology and drug action, that he is led to question the experience of the author in these fields. M. H. S.

Medical Morals and Manners. By H. A. Royster, M. D. Price $2.50. Chapel Hill: The University of North Carolina Press.

The author is one of the foremost surgeons of the South and he has lived through, as well as contributed to, the development of his specialty in perhaps the most fruitful period in its history. The volume is a collection of papers and addresses on various topics including medical history, human physiology and philosophy. The book is permeated with a sense of cultural idealism and pride in his profession which is a joy to the reader. The reviewer knows of no better book to recommend to those contemplating medicine as a career and the physician will find much of interest in it. It fittingly deserves a place alongside Morris' "Fifty Years a Surgeon." J. W. H.

Diabetes. By A. M. Sindoni, Jr., M. D., chief of the diseases of metabolism, St. Agnes Hospital, Philadelphia. Introduction by Morris Fishbein, M. D., editor, Journal of the American Medical Association. Price $2. New York: Whittlesey House, 1937.

This volume is one more manual for the joint use of patient and physician. It has very little unusual about it except the organization of much of the information into a series of questions and answers. Of necessity, this means that the book has more pages than would be necessary to present the same information with equal simplicity. The text is written in an attempt to explain a technical problem to patients and at the same time not to be unduly simple for the medical reader. The dietary part of the book includes a large number of recipes and surprisingly little information about the groups of vegetables and fruits which are so universally found helpful in diets for diabetes. There are very few suggestions to help the clinician who does not already have concrete ideas about the type of diet he wishes to employ. E. L. S.

Handbook of Orthopaedic Surgery. By A. R. Shands, Jr., M. D., associate professor of surgery in charge of orthopaedic surgery, Duke University School of Medicine, and chief of the orthopaedic service, Duke Hospital, Durham, North Carolina. In collaboration with R. B. Raney, M. D., instructor in orthopaedic surgery, Duke University School of Medicine, Price $5. St. Louis: The C. V. Mosby Company, 1937.

The book is an excellent handbook of orthopaedic surgery.

There is no discussion of the treatment of fresh fractures. There is, however, an excellent section on the discussion of fracture deformities and the treatment of delayed and nonunion with which the orthopaedic surgeon is most concerned. It is of chief value to the general practitioner who wants a short and concise discussion on diagnosis and treatment of orthopaedic conditions without reading a great amount of material and it is of value also to medical students because of its brevity with accuracy.

All the important orthopaedic conditions and diagnoses are discussed under separate heads, and, in addition, there is an excellent chapter on affections of the low back. In addition affections peculiar to various joints are grouped together.

At the end of the book there is a bibliography which contains the old classical papers on orthopaedic subjects and also the more modern and accepted literature.

It is recommended first primarily to the medical student and second to the general practitioner. H. W. W.

PROFESSIONAL PROTECTION

SINCE 1899
SPECIALIZED
SERVICE

A DOCTOR SAYS:—

"Your organization, I feel, has again lived up to its promises. The protection that your Company offers to the honest and conscientious practitioner is a wonderful safeguard against unfair litigation."

THE
MEDICAL PROTECTIVE COMPANY
OF FORT WAYNE, INDIANA
WHEATON, ILLINOIS

Behind
MERCUROCHROME
(dibrom-oxymercuri-fluorescein-sodium)
HV&D *is a background of*

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

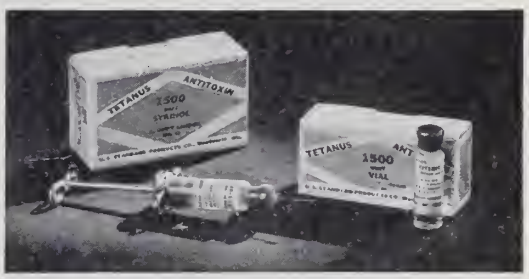
ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.
BALTIMORE, MARYLAND

TETANUS

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry



U.S.S.P. CO. LABORATORIES

1. Use only young healthy horses for antitoxin production.
2. Use every scientific precaution in processing antitoxins.
3. Produce a superior tetanus antitoxin.

TETANUS ANTITOXIN, U.S.S.P. Co., is packaged in syringes and vials, to meet the needs of the physician for prophylaxis or treatment, as follows: 1,500, 5,000, 10,000 and 20,000 units.

Administration: A 1,500 unit prophylactic dose is injected intramuscularly at the time of injury, and repeated at 24 to 48 hour intervals if necessary.

A 3,000 unit prophylactic dose with subsequent injection of 1,500 unit doses is recommended for powder wounds, compound fractures and delayed prophylaxis.

TETANUS GAS GANGRENE ANTITOXIN used as a prophylactic or therapeutic agent in cases of compound fracture, lacerated wounds and postoperatively when indicated.

Write for catalog or information on any particular product in which you are interested.

UNITED STATES USSP STANDARD PRODUCTS

U. S. Government License No. 65

U. S. Standard Products Company
Woodworth, Wisconsin

VITAMIN REQUIREMENTS OF MAN

IV. VITAMIN B_1

● The multiple nature of vitamin B has been definitely established by intensive research within the past decade. Considerable quantitative information is now available concerning the requirements of certain species of animals for the various factors contained in the vitamin B complex. At the present time, however, the anti-neuritic vitamin B_1 is the only one of these factors for which the minimum requirement for man can be postulated.

Beriberi-preventing diets of Chinese coolies and natives of Java have been estimated to contain 200 International units of vitamin B_1 (1). Practical use is made of knowledge such as this in the Philippines, where the Bureau of Science, in a successful effort to combat beriberi, dispenses tikitiki (vitamin B_1 concentrate from rice polishings) containing approximately 200 International units of vitamin B_1 per daily dose.

It is generally agreed that the absolute requirement for this factor may be variable, depending upon such factors as size and caloric intake of the individual. However, equations have been derived which take into consideration some of these variables and are useful in estimating the adult vitamin B_1 requirement (2).

Application of these equations indicate that approximately 225 International units of vitamin B_1 per day are required for the average American adult. The average daily infant requirement has been estimated to be 50 International units, increasing to 200 units at the time of adolescence (1). The League of Nations Technical Commission recommends a daily intake of over 150 International units for pregnant and lactating women (3).

While it may be possible to estimate the daily intake of vitamin B_1 which will prevent clinical beriberi, it is not yet possible to state the minimum amount of the vitamin which, when imposed on an otherwise adequate diet, will promote optimum nutrition. There is increasing belief that some of the vague disorders, noted clinically, may be in reality manifestations of suboptimal vitamin B_1 intake (4).

Today, we have the new concept of nutrition which recommends the intelligent inclusion in the varied dietary regime of foods with known nutritive values—thereby insuring that the individual is not dwelling in "the twilight zone of nutrition". Thus has arisen the concept of "protective foods".

Results of formal bio-assay have established many commercially canned foods as valuable sources of vitamin B_1 (5).

Incorporation in the diet of the wide variety of foods—made available throughout the year by commercial canning—will assist in the acquisition of an adequate supply of vitamin B_1, as well as other members of the B complex, essential to human nutrition and usually occurring in nature along with the antineuritic factor (6).

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) 1934-35. Am. Pub. Health Assn. Year Book. Page 70

(2) The Vitamin B Requirements of Man. G. R. Cowgill Yale University Press. New Haven. 1935

(3) 1936. Nutr. Abst. and Rev. 5, 855

(4) a. 1936. J. Am. Med. Assn. 106, 261
b. 1935. Ibid. 105, 1580

(5) a. 1932. Ind. Eng. Chem. 24, 457
b. 1932. J. Nutrition 5, 307
c. 1934. Ibid. 8, 449
d. 1935. Ibid. 11, 383

(6) 1934. U.S. Pub. Health Rpts. 49, 754

This is the twenty-fifth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St.,
Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268–2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D.,
Frederick Menge, M.D., S. C. Plummer, M.D.

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

Drink

Coca-Cola

TRADE MARK REGISTERED

Delicious and Refreshing

Pure refreshment

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE—The complete set of eye, ear, nose, and throat instruments of the late Dr. G. I. Hogue. A diathermy and surgical unit costing $372.50, price now $75. A transformer $100, now $40. A Keystone telebinocular $20. New Cameron set $225, now $100. Will also sacrifice many eye, ear, nose, and throat instruments for $75. Address replies to Mrs. G. I. Hogue, 1030 North Marshall Street, Milwaukee.

FOR SALE—30 M. A. oil condenser type x-ray with fluoroscope, screen, and darkroom equipment at $125, and large oil condenser type diathermy at $65. Delivered anywhere in Wisconsin. Other office equipment also in good condition. Address replies to No. 65 in care of Journal.

FOR SALE—A $700 general practice of medicine and surgery in southern Wisconsin city of 4,500. Ten minute drive to hospital. Opportunity to do refractions if qualified. Will remain to introduce purchaser. Splendid schools and churches. Reason for sale, am specializing. Cash income last year $9,900; an insured income from the start. Purchase price includes drugs and 1,000 case histories. Terms given on good security. This is an unusual opportunity for one who is capable. Address replies to No. 63 in care of Journal.

FOR SALE—New examining table and complete office equipment. Very reasonable prices. Address Box G, Cumberland, Wisconsin.

FOR SALE—Sanatorium site, Platteville. Well-built house, new Oilomatic, seven acres of land. Address replies to Miss Elisabeth McGregor, office of Attorney General Madison, Wisconsin.

FOR SALE—Two Caulk-Kackley prostatic punches; new, latest models, sizes 27 and 30. One has never been used and the other has been used but once. Address replies to Sparta Clinic, Sparta, Wisconsin.

FOR SALE—Practice in southern Wisconsin village. New home and office combined. Near hospital. Transferable appointments. Good dairy section. Owner leaving for postgraduate work. Address replies to No. 68 in care of Journal.

FOR SALE—Complete x-ray equipment, list price approximately $5,000; will sacrifice for $950. Electrotherapy equipment, list price $4,000; will sacrifice for $500. Also tables, desks, chairs, and so forth, or will sell any item separately. George E. Peterson estate, P. O. Box 62, Waukesha, Wisconsin.

FOR SALE—One portable 3-10 G. E. x-ray, completely overhauled last year. Price $125. Address replies to No. 74 in care of Journal.

FOR SALE—Elliott treatment regulator used about ten hours. Guaranteed in good condition or money refunded. First check for $125 takes it. Wappler galvanic and wave generator, slightly used, in good condition, cost $500; will take $100. One white enamel Castle sterilzer on stand; sterilizing unit in excellent condition; about six years old; $40. One Burdick infra-red lamp, medium size, fine condition, $25. Address replies to Dr. William Fletcher, Salem, Wisconsin.

FOR SALE—One oak examining table in first-class condition. One Vit-A-Net blanket. Will sell very reasonable. Address replies to Dr. Estelle S. Chase, 323 Grove Street, Fort Atkinson, Wisconsin.

FOR SALE—Home and office with separate entrance. Partially furnished if desired. Northeastern Wisconsin. Twin city population about 30,000. Hospital facilities available to an able and well-trained man. A substantial down payment with reasonable terms. Fifty years in practice. Must retire soon on account of failing health. Address replies to No. 75 in care of Journal.

FOR SALE—Unopposed practice, office equipment, and drugs in town of 600, eighty miles north of Madison. Good roads, open all year, rich community. Open hospitals twelve and thirty-six miles. Expenses from first week. Price $300, one half down. Address replies to No. 77 in care of Journal.

ASSISTANTSHIP WANTED—A woman physician with Wisconsin license, having five years' experience in general practice, wishes to become assistant to well-established physician. Is planning to take postgraduate work in summer; would be available in late summer. References given. Especially interested in obstetrics and pediatrics. Full details may be obtained by writing to No. 70 in care of Journal.

WANTED—General practitioner to associate with and share an attractive downtown office suite with an established eye, ear, nose, and throat specialist in Milwaukee. Would prefer one who desired to work into this specialty in the future. Address replies to No. 72 in care of Journal.

WANTED—One or two additional specialists to share an excellently equipped and furnished suite in a Milwaukee downtown office building. Secretarial, x-ray, and laboratory facilities provided. Address replies to No. 59 in care of the Journal.

WANTED — Man for locum tenens work, two months' period. Must be licensed in Wisconsin. Address replies to No. 67 in care of Journal.

WANTED—Young physician with Wisconsin license as an assistant in general practice. City of 1,700. Small hospital in connection. Start at $200 and must have own car. Address replies to No. 79 in care of Journal.

PHYSICIANS' EXCHANGE

(Continued)

WANTED—Good location, partnership or assistantship, by physician recently from Germany. Licensed in Wisconsin and Illinois. For seven years surgical, obstetrical, and medical resident in Germany. Married. Will take locum tenens work for longer period (one year). Will not compete. Address replies to No. 80 in care of Journal.

WANTED—Position as assistant in physician's office; city or rural community. X-ray and laboratory technician; six years' experience with urologist; general office routine, bookkeeping, and so forth. Address replies to No. 76 in care of Journal.

LOCUM TENENS —Young physician with twelve years' experience in general practice including surgery would like locum tenens work for two to four weeks. Address replies to No. 78 in care of Journal.

LOCATION—Splendid opportunity for Wisconsin registered eye, ear, nose, and throat man. Position open immediately in Milwaukee. Address Dr. V. A. Chapman, 324 East Wisconsin Avenue, Milwaukee, Wisconsin.

FOR RENT—Finely located office for dentist or doctor, second floor, 1725 Monroe Street, Madison. Busy corner, prominent street in flourishing community, University section of city. Address promptly Theodore Herfurth, 427 Washington Building, Madison, Wisconsin.

WANTED—Colorimeter—Duboscq or some other make. Address replies to No. 64 in care of Journal.

NON-CANCELLABLE

Health and Accident Insurance

and

Low Cost, Guaranteed Rate
Life Insurance

THE MASSACHUSETTS PROTECTIVE COMPANIES
Worcester, Massachusetts

A. L. LYTTLE, General Agent
5000 Plankinton Building
Milwaukee, Wisconsin

TWENTY MILLION CIGARETTE SMOKERS

WITH more than 20,000,000 cigarette smokers in the country, the effects of cigarette smoking should be of vital interest to the medical profession.

One phase of the subject is the irritant properties of cigarette smoke. Studies show that Philip Morris cigarettes, in which diethylene glycol is used as the hygroscopic agent, are considerably less irritating than cigarettes in which glycerine is employed.*

Try Philip Morris yourself. Test them on your patients. Your findings will confirm Philip Morris superiority.

For exclusive use of practising physicians

PHILIP MORRIS & CO. Ltd. Inc.
119 Fifth Avenue New York

Please send me
*Reprints of papers from
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245 ☐
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154 ☐
N.Y. State Jour. Med., June 1935, Vol. 35, No. 11 ☐
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60 ☐

SIGNED: _____

ADDRESS _____

CITY _____ STATE _____

VIS.

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

MADISON HEADQUARTERS

State Medical Society of Wisconsin
Annual Meeting, Sept. 8, 9, 10, 11, 1936.

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

NORMANDALE

for

Neuropsychiatric Cases

An institution for the treatment of functional and organic disturbances of the central nervous system, including psychoses.
For further information address:
Dr. I. B. Shulak, Supt.
NORMANDALE
Madison, Wisconsin

WHEN IN MADISON

Visit Your State Offices

Room 305, Washington Building

one block from the Capitol

DIARRHEA

"the commonest ailment of infants in the summer months"

(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

One of the outstanding features of DEXTRI-MALTOSE is that it is almost unanimously preferred as the carbohydrate in the management of infantile diarrhea.

SERIOUSNESS OF DIARRHEA

There is a widespread opinion that, thanks to improved sanitation, infantile diarrhea is no longer of serious aspect. But Holt and McIntosh declare that diarrhea "is still a problem of the foremost importance, producing a number of deaths each year. . . ." Because dehydration is so often an insidious development even in mild cases, prompt and effective treatment is vital. Little states (Canad. Med. A. J. 13: 803, 1923), "There are cases on record where death has taken place within 24 hours of the time of onset of the first symptoms."

In diarrhea, "The sugar is added gradu... conditions admit, some sugar other than milk sugar or cane sugar being used, preferably dextrin and maltose."—*H. E. Small: Diarrhoea in bottle-fed infants, J. Maine M. A. 12:152-158, Jan. 1932.*

Regarding the treatment of diarrhea, "In our experience, the most satisfactory carbohydrate for routine use is Mead's dextrimaltose No. 1."—*F. R. Taylor: "Summer Complaints," Southern Med. & Surg., pp. 655-659, August, 1927.*

In cases of diarrhea, "For the first day or so no sugar should be added to the milk. If the bowel movements improve carbohydrates may be added. This should be the one that is most easily assimilated, so dextri-maltose is the carbohydrate of choice."—*W. H. McCaslan: Summer diarrheas in infants and young children, J. M. A. Alabama, 1:278-282, Jan., 1932.*

In diarrhea, "Carbohydrates, in the form of dextri-maltose, well cooked cereals or rice, usually can be handled without trouble."—*B. B. Jones: A discussion of some of the commoner types of infantile diarrhea, and the principles ... the diets used in their treat... Monthly, 66: 411, ...*

"The most desirable sugar is dextri-maltose, because of all the sugars maltose is least apt to ferment."—*A. I. Blau: The use of protein milk ... 119:359, April 2.*

Concerning the treatment of diarrhea, "If the weight remains stationary, it is an indication that loss of substance is occurring through the stools, mostly in the form of alkaline salts. To equalize this loss of substance, the diet must be increased, but in such a way as to avoid causing fermentation. This may be done by adding dextri-maltose and preparations of protein to the food, increasing the calories until the infant is taking 160 calories per kilo. of body weight."—*H. L. Ratnoff: Nutritional disturbances, Arch. Pediat., 41:771 Nov., 1924.*

... loss of substance, ... such a way as to avoid ... dextri-malt...

... use a preparation with a high dextrin and relatively low maltose content, as Mead's dextri-maltose."

"If it is desired to feed an unusually large amount of sugar to a baby, it is well to use a maltose-dextrin preparation, as in this way there is less danger of bringing about sugar fermentation than if lactose were used."—*L. W. Hill: Practical Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 206.*

"The young baby ... ture, usually one-third ... ally skimmed at first, and a half ... We prefer Dextri-Maltose as the carbohydrate most easily digested. . . . Preparations containing the more maltose are more rapidly absorbed, but on the other hand, are more liable to produce diarrhea. . . . Lactose which was very popular at one time, is never used in our work. The consensus of opinion seems to be that milk sugar is often the source of indigestion in normal infants and the primary cause of fermentative dyspepsias in ... stances."—*J. H. Reading, Jr.: Artificial ... infant during the first year ... April, 1923.*

... Professor Finkelstein and the use of butter ... of being able to feed the infant with fermentative diarrhea a food containing 12 calories to the ounce like protein milk, after only one day on a starvation diet, is apparent. In addition, the further advantage of being able to safely add a carbohydrate like Dextri-Maltose No. 1 or No. 2 to the protein milk within a few days, enables one to gradually bring the infant up to its basal need in a short time. When protein milk was ... carbohydrate additions were advised ... the result that many children on ... rate of collapse. The suggestion ... town of Toronto, Canada, that D ... added to protein milk, was of great ... ny practitioners still use protein m ... ged periods without adding carbo ... st be emphasized that regardless of ... of the stools, carbohydrate must be ... ein milk within a reasonable time ... void collapse."—*G. J. Feldstein: Un ... fants and children, Arch. Pediat. ... 1933.*

"Protein milk may be continued for several weeks when a gradual transition to a whole milk or evaporated milk formula, which will supply about one and one-half to two ounces of whole milk to every pound of body weight, is reached. This also should finally have the addition of dextri-maltose amounting to five to seven per cent."—*R. A. Strong: Summer diarrheas in infancy and early childhood, Arch. Pediat. 47:844-854, June, 1930.*

"It should be remembered ... of lactose may cause diarrhoea. If a high percentage of sugar be required it is better to ... it by dextri-maltose, such as Mead's Nos. ... where the maltose is only slightly in excess ... dextrins, thus diminishing the possibility ... cessive fermen... *practices in in... 6:38, 1930; a... April, June ...*—*W. J. Pearson: ... Graduate Med... 123.*

... treatment of diarrhea, "Dextri-maltose preparations are preferred, for they do not ferment readily, are rapidly absorbed and leave very little for fermentation."—*V. A. Blenkle: Protein milks in infant feeding, Arch. Pediat., 42:743-760, Nov., 1925.*

... ated as the most ... ly the carbohydrate. It ... ally if given beyond 6 ... rhoea in many infants. ... aunt of carbohydrate, it is de... avoided and if it is de... ... actose by dextri-maltose ... and 2). In our view cane-... mixtures (Mead's Nos. ... sugar is less suitable than lactose, and if for any reason there is objection to the use of lactose, ... is obtained by the addition of carbohydrates, while fat and casein are reduced. For this purpose dextrimaltose and flour are better than the ordinary sugars, since they are more slowly absorbed and have greater efficacy in their powers of controlling the flora in the large intestine."—*W. J. Pearson ... W. G. Wyllie: Recent Advances in Diseases ... H. Blakiston's Son & Co., Phila., 1930.*

... ... best to partly ...

"... I begin to add carbohydrates slowly, by replacing ¼ ounce Casec every two days with ¼ ounce of Dextri-Maltose, preferably Dextri-Maltose Number one. As a rule, this is tolerated. When one ounce of Dextri-Maltose is used, the Casec, of course, should be discontinued."—*J. W. Reed: The etiology and ... stone: Infant Feeding and ...*

In cases of malnutrition and indigestion, "The appetite improves rapidly, and the stools soon become normal in appearance, if the sugars are intelligently prescribed. By this I refer to proper proportions of dextrin and maltose. When there is a tendency to looseness, I have used t... dextri-maltose, for t... ...—*H. Ladd: Furn... ...eration known as ... hydrates; . . . ...genized olive oil mixtur... July, 1916.*

"When sugar causes diarrhoea one can change the form of it. Mead's Dextrimaltose in small doses is more quickly absorbed and so superior to castor (cane) sugar. Lactose is expensive and seems not to be better than castor sugar."—*H. B. Gladstone: Infant Feeding and ...*

"After the preliminary short period of starvation, protein milk should be used. . . . When the diarrhoea has been sufficiently checked, dextri-maltose may be added and gradually increased until from 4 to 6 tablespoons are being used."—*W. L. Denney: Acute nutritional disturbances of infancy, Univ. West. Ontario M. J. 2:132-137, April, 1932.*

"Milk-sugar, which has been so extensively used in the past, should never be used where there is any digestive disturbance. It is not as easily digested as either cane-sugar (granulated sugar) or dextri-maltose. The latter is the best of all sugars to use, especially if there is any tendency to looseness of the bowels."—*A. Brown: The Normal Child: Its Care and Feeding, F. D. Goodchild Company, Toronto, 1923, p. 120.*

For cases of fermentative diarrhea, ". . . the ideal plan of treatment would be to give a food which is low in sugar (the food which that group of organisms thrive on) and high in protein. Calcium caseinate milk accomplishes this purpose. In our series of cases, we found it was necessary to use the casein calcium for from 5-8 days; we then stopped it and added dextri-maltose to the formula."—*A. G. DeSanctis and L. V. Paider: The value of calcium caseinate milk in fermen... diarrhea, Arch. Pediat. ...*

Just as DEXTRI-MALTOSE is a *carbohydrate* modifier of choice, so is CASEC (calcium caseinate) an accepted *protein* modifier. Casec is of special value for (1) colic and loose green stools in breast-fed infants, (2) fermentative diarrhea in bottle-fed infants, (3) prematures, (4) marasmus, (5) celiac disease. *MEAD JOHNSON & CO., EVANSVILLE, IND., U.S.A.*

When requesting samples of Dextri-Maltose, please enclose professional card to cooperate in preventing their reaching unauthorized persons.

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S

770 North Water St. **Phone Daly 1461**
MILWAUKEE, WIS.

Kenilworth Sanitarium

KENILWORTH, ILLINOIS
(Northern Suburb of Chicago)
Founded by Sanger Brown, M. D., 1905

Built and equipped for treatment of mental and nervous diseases. Over ten acres of well parked and landscaped grounds. Supervised occupational and recreational activities.

JAMES M. ROBBINS, M.D., Medical Director
E. J. KELLEHER, M.D.
CHRISTY BROWN, Business Manager
PETER BASSOE, M.D., Consulting Physician

All correspondence should be addressed to Kenilworth Sanitarium, Kenilworth, Ill.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

Send for application for membership in these purely professional Associations

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Since 1912

FORTIER and FORTIER

X-RAY LABORATORY

Deep Therapy, 200,000 Volts
Superficial Therapy
Roentgen Diagnosis

Radiographic Examinations made at beside in residence if desired.

709-710 MAJESTIC BUILDING
MILWAUKEE

Office Marquette 5150-5151
Residence Edgewood 0420

Orthopedic Appliances

Abdominal Belts
Whitman Arch Plates
Elastic Stockings
Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 Milwaukee, Wis.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

STEPHEN E. GAVIN, Fond du Lac, President
JAMES C. SARGENT, Milwaukee, President-Elect
A. E. RECTOR, Appleton, Speaker
HENRY J. GRAMLING, Milwaukee, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
A. W. Rogers_____Oconomowoc

Second District:
Frank W. Pope_____Racine

TERM EXPIRES 1937

Third District:
Joseph Dean _____Madison

Fourth District:
W. Cunningham ____Platteville

TERM EXPIRES 1937

Fifth District:
A. H. Heidner_____West Bend

Sixth District:
S. E. Gavin_____Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi_____Galesville

Eighth District:
G. R. Duer_____Marinette

Ninth District:
Joseph F. Smith_____Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler_____Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson_____Iron River

Twelfth District:
Joseph Lettenberger_Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert_____Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Kililins, Green Bay.
Calumet	A. J. Wagner, Brilllon	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purcell, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire-Dunn-Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	C. G. Richards, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, New Glarus	E. D. McConnell, Darlington.
Langlade	Paul Dailey, Elcho	W. P. Curran, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	H. H. Christensen, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Williams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Oneida-Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Anderson, Plum City	A. E. McMahon, Glenwood City.
Polk	W. C. Andrews, Frederic	Earl C. Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempealeau-Jackson-Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	W. W. Coon, Walworth	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	J. B. Vedder, Marshfield	W. G. Sexton, Marshfield.

TO THE DOCTOR'S WIFE

•

It is our conviction that cosmetics should be selected to suit the individual's requirements. We cater exclusively to you, the individual. Our representatives are trained to help you select suitable beauty preparations and to show you how to apply them.

It is only sensible to realize that a truly beautiful skin is first of all a healthy skin and secondly a well-cared-for skin.

Cosmetics serve to enhance your appearance, to present you at your best. In this regard it is well to bear in mind that a natural appearance is by far the most charming.

Carefully selected, and artistically applied, make-up preparations lose their identity as cosmetics and become an indistinguishable part of your personality.

We want it clearly understood that we in no way undertake to treat skin disorders. If you are thus afflicted we had rather that you not use our preparations without the consent of a skin specialist. Our formulary is available to the medical profession.

A card addressed to us will be referred to the manager of the territory in which you reside. It is our pleasure to be at your service.—LUZIER'S, Inc.

Beauty Preparations by Luzier

KANSAS CITY, MISSOURI

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Reeducational Methods Applied.

Building Fireproof

Isolated, Fireproof Psychopathic Department for Acute Mental Cases

Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
JAMES C. HASSALL, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin
PETER BASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office: 1330 Wells Building
Tuesday Mornings by Appointment
Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1-3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
Rock Sleyster, M.D., Medical Director.
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".

EMPIRE PRINTING COMPANY
MADISON WISCONSIN

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

Ninety-Sixth
Anniversary Meeting
Milwaukee
September 15-18

The Wisconsin Medical Journal

IN THIS ISSUE

BLEEDING AFTER MENOPAUSE
By R. W. Te Linde, M. D.
TREATMENT OF ERYSIPELAS
By M. J. Fox, M. D.
SNAKE VENOM POISONING
By J. L. Keeley, M. D.
CLEFT PALATE REPAIR
By V. B. Hyslop, M. D.
ASSEMBLY FLOOR DISCUSSION
VOLUNTARY AND COMPULSORY INSURANCE

COLLEGE OF PHYSICIANS
LIBRARY
SEP 15 1937
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 512

XXVI, Number 7
ashington Avenue
MADISON, WISCONSIN, JULY, 1937
Per Year $3.5
Single Copy 50 Cent
Copyright, 1937, by The State Medical Society of Wisconsin

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

- A PRIVATE SANATORIUM
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES
- CAREFULLY SUPERVISED REST.
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Further Information Write
T. L. HARRINGTON, M. D., Medical Director,
Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

"I'm Sorry THE DOCTOR ISN'T HERE TODAY — HE HAD TO GO TO COURT"

★ *Driving daily regardless of weather conditions or traffic—answering calls in storms and blizzards—the Doctor is subjected to accident-possibilities in excess of the normal. It is a tribute to his skill and caution that accident ratios among the Medical Profession are very low.*

WHEN the businessman goes to court to testify in the accident in which he was involved, his financial loss is measured only by the bills he may pay. But when the Doctor goes to Court, he suffers a double loss — the income that is gone because he was not available for services to his patients, and the bills that come in.

At a time like this EMPLOYERS MUTUALS can save substantial sums for policyholders. Every detail that can be taken from the Insured's shoulders is assumed by the skilled staff of the Insurance Company, in order to reduce the time and annoyance he must undergo. Doctors find EMPLOYERS MUTUALS an outstandingly considerate Insurance Company for their own Insurance—not only Automobile but Public Liability and Fire Insurance as well. Ask any EMPLOYERS MUTUALS representative to tell you of the services we can offer you.

EMPLOYERS MUTUALS

Appleton
Eau Claire
La Crosse

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.
EMPLOYERS MUTUAL INDEMNITY CORPORATION
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY
Home Office: Wausau, Wisconsin

Madison
Milwaukee
Superior

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 7

MADISON, WISCONSIN, JULY, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

The Pathological Significance of Bleeding After the Menopause by Richard W. TeLinde, M.D., Baltimore, Maryland ---- 521

The Treatment of Erysipelas by M. J. Fox, M.D., Milwaukee ---- 528

The Treatment of Snake Venom Poisoning by John L. Keeley, M.D., Madison ---- 534

A Cleft Palate Repair Technique Affording Better Speech Results by Volney B. Hyslop, M.D., department of oral and plastic surgery, University of Wisconsin, Madison ---- 540

Current Endocrine Problems in Gynecology by Elmer L. Sevringhaus, M.D., University of Wisconsin, Madison ---- 543

Acute and Subacute Upper Respiratory Infections by Julian Y. Malone, M.D., Milwaukee ---- 548

Encephalitis with Polyneuritis; Inhalation of Chemical Dust by Stuart A. McCormick, M.D., Madison ---- 551

EDITORIALS

Page

Honors Richly Deserved ---- 552

The County Secretary ---- 553

The Patient's Family ---- 553

MISCELLANY

The President's Page ---- 554

Society Proceedings ---- 555

The Woman's Auxiliary ---- 556

News Items and Personals ---- 557

Births, Marriages, Deaths ---- 558

Society Records ---- 559

Correspondence ---- 559

Program Announced for Ninety-Sixth Anniversary Meeting, September 14, 15, 16 and 17 ---- 561

Members—1937 House of Delegates ---- 562

Report of the Atlantic City Session of the American Medical Association ---- 564

Assembly Floor Discussion on Bill 850, A, Legalizing Voluntary Sickness Insurance Schemes 568

Assembly Kills Compulsory Sickness Insurance Bill, 63–27 ---- 578

Books Received for Review ---- 582

Book Reviews ---- 582

Physicians' Exchange ---- 588

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]

"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physio-mechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M.D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D.
L. Tennyson Peyton, M.D.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **B. P. Grimes, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

WHEN DEALING WITH CANCER

Consider the Utility, Accessibility and

LOW COST OF RADIUM THERAPY

LEASING PLAN: Equivalent to radium ownership without CAPITAL investment. You keep possession continuously. We pay insurance and upkeep. Fifty milligrams for $22.50 per month; 100 milligrams $40. Larger amounts in proportion. The initial lease is for a period of one year. New radium. Modern platinum containers.

RENTAL PLAN: Any quantity available by special delivery express. Platinum tubes and needles, and plaques, in all dosage range. The basic rate is $10 for 50 milligrams for 36 hours' actual time of application.

PURCHASE PLAN: Radium in all forms available for purchase in any quantity at the lowest price in the history of the radium industry.

RADON: Radon in ALL-GOLD implants at $2.50 per millicurie.

THE COMPLETE SERVICE FOR RADIUM USERS

Telephone RANdolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building 25 E. Washington St.

CHICAGO, ILLINOIS

TO THE DOCTOR'S WIFE

•

It is our conviction that cosmetics should be selected to suit the individual's requirements. We cater exclusively to you, the individual. Our representatives are trained to help you select suitable beauty preparations and to show you how to apply them.

It is only sensible to realize that a truly beautiful skin is first of all a healthy skin and secondly a well-cared-for skin.

Cosmetics serve to enhance your appearance, to present you at your best. In this regard it is well to bear in mind that a natural appearance is by far the most charming.

Carefully selected, and artistically applied, make-up preparations lose their identity as cosmetics and become an indistinguishable part of your personality.

We want it clearly understood that we in no way undertake to treat skin disorders. If you are thus afflicted we had rather that you not use our preparations without the consent of a skin specialist. Our formulary is available to the medical profession.

A card addressed to us will be referred to the manager of the territory in which you reside. It is our pleasure to be at your service.—LUZIER'S, Inc.

Beauty Preparations by Luzier

KANSAS CITY, MISSOURI

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES.

MEDICINE—Informal Course first of every week; Intensive Personal Courses during August.

SURGERY—General Course One, Two, Three and Six Months; Two Weeks Intensive Course Surgical Technique (Operative Surgery with Practice); Clinical Course. Courses available every week.

GYNECOLOGY—Four Weeks Intensive Personal Course starting August 2. Two Weeks Intensive Course starting September 20 and October 18.

FRACTURES & TRAUMATIC SURGERY—Informal Practical Course; Ten Day Intensive Course starting July 12 and October 11

OPHTHALMOLOGY—Two Weeks Intensive Course starting September 20.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting October 4.

UROLOGY—General Course Two Months; Intensive Course Two Weeks, Special Courses Cystoscopy, Ten Day Course every two weeks.

ELECTROCARDIOGRAPHY — Two Weeks Intensive Course starting August 2.

General, Intensive and Special Courses in all branches of Medicine and Surgery starting every week.

Teaching Faculty—Attending Staff of Cook County Hospital

Address: Registrar, 427 South Honore Street, Chicago, Illinois.

Behind

MERCUROCHROME

(dibrom-oxymercuri-fluorescein-sodium)

HWD *is a background of*

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

ACCEPTED AMERICAN MEDICAL ASSN.

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.
BALTIMORE, MARYLAND

In Fighting Syphilis . . .

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

BISMUTH
Subsalicylate
U.S.S.P. CO.

According to clinical results, Bismuth Subsalicylate offers the following advantages:

Relatively nontoxic when the dose is properly controlled.

No contraindications when administered following arsenicals.

Practically no local irritation and freedom from abscesses at site of injection.

Requires very little shaking.

Bismuth Subsalicylate should be given intramuscularly . . . 1 cc. at weekly intervals for 12 to 15 injections, according to indications. **INTRAVENOUS INJECTION IS TO BE STRICTLY AVOIDED.**

U. S. STANDARD PRODUCTS CO.

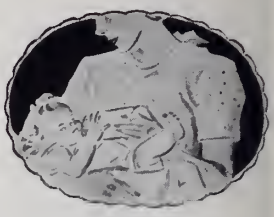
[*Biologicals, Ampules and Glandular Products of Highest Quality & Purity*]

WOODWORTH WISCONSIN

SAFE WEANING—

The Baby Regulates Breast Feeding

An Obligation to Infants



The Doctor Regulates Bottle Feeding

INFANTS should be weaned from the breast at eight months. The season of the year is immaterial with modern knowledge of nutrition and hygiene. Gradual weaning is desirable. It is accomplished by progressively increasing the number of bottle feedings in substitution for the breast feedings.

The formula consists of 6 ounces milk, 2 ounces water, 2 teaspoons Karo for each bottle—one the first week; two the second, etc. The schedule for additional foods remains the same as during nursing. But babies unaccustomed to the bottle often refuse it as long as the breast is available. Then abrupt weaning becomes necessary, some person other than the mother giving the feedings.

The formula in abrupt weaning prepared for the entire day consists of 24 ounces milk, 8 ounces water, 3 tablespoons Karo, divided into 4 feedings, 8 ounces each, at 4 hour intervals. The formula can be concentrated once the baby is adjusted to the bottle feeding.

Karo is a mixture of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor) practically free from protein, starch and minerals. Karo is a non-allergic carbohydrate, not readily fermentable, well tolerated, readily digested, effectively utilized and economical for both the baby and the budget.

Feeding	*1st Week*	*2nd Week*	*3rd Week*	*4th Week*
6:00 A.M.	Breast	Breast	Breast	Bottle
10:00 A.M.	Breast	Breast	Bottle	Bottle
2:00 P.M.	Breast	Bottle	Bottle	Bottle
6:00 P.M.	Bottle	Bottle	Bottle	Bottle

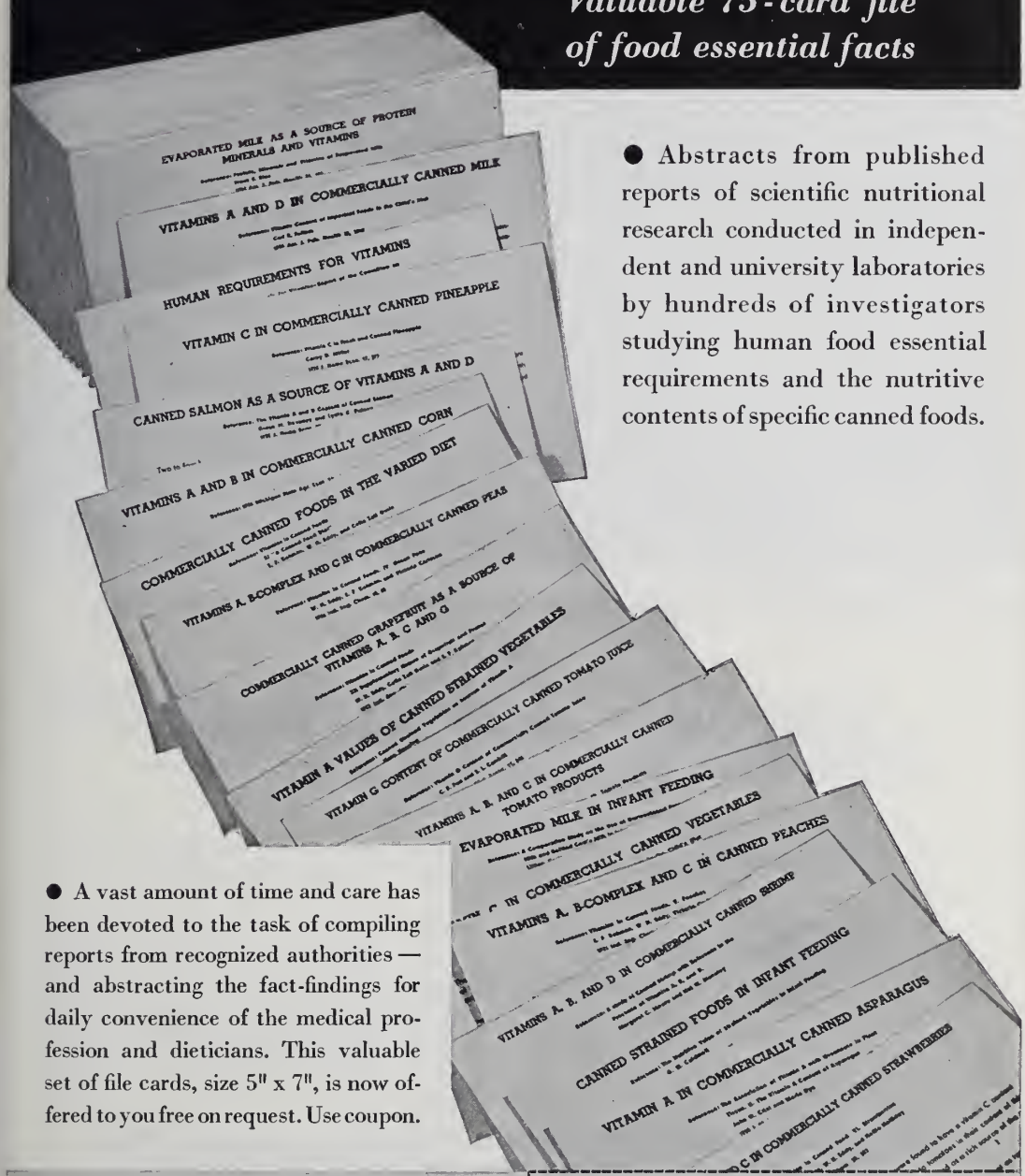
For further information, write

CORN PRODUCTS SALES COMPANY
Dept. SJ-7, 17 Battery Place, New York, N. Y.

★ **Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.**

FOR THE PROFESSION ONLY

Valuable 75-card file of food essential facts



● Abstracts from published reports of scientific nutritional research conducted in independent and university laboratories by hundreds of investigators studying human food essential requirements and the nutritive contents of specific canned foods.

● A vast amount of time and care has been devoted to the task of compiling reports from recognized authorities — and abstracting the fact-findings for daily convenience of the medical profession and dieticians. This valuable set of file cards, size 5" x 7", is now offered to you free on request. Use coupon.

We Manufacture Cans CANCO *We Do No Canning*

AMERICAN CAN COMPANY

230 PARK AVENUE, NEW YORK, N. Y.

AMERICAN CAN COMPANY
230 Park Avenue, New York, N. Y.

Please send me free set of Abstract File Cards.

Name_____

Address_____

City_____ State_____

THE SUMMIT HOSPITAL

Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Homelike Environment

Excellent Cuisine

Moderate Rates

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

DOCTOR YOU ARE INVITED

To Visit These Attractive

NEW HEADQUARTERS

Ideally Located For You, Doctor, To Conveniently And Readily Contact These New Offices And Plant

New Home of Milwaukee Optical Mfg. Co. 4th Floor Bankers Building N. E. Corner East Wisconsin and North Water

You have at your command the services and facilities of this large, complete, and soundly established supply house.

THE MILWAUKEE OPTICAL MFG. CO.

208 EAST WISCONSIN AVENUE MILWAUKEE, WISCONSIN

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St., Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268–2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D., Frederick Menge, M.D., S. C. Plummer, M.D.

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$32.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department

Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 7 Copyright, 1937, by The State Medical Society of Wisconsin JULY, 1937

The Pathological Significance of Bleeding After the Menopause*

By RICHARD W. TeLINDE M. D.

Baltimore, Md.

THE appearance of blood from the genital tract after the cessation of the menstrual life is a symptom which should never be looked upon lightly. Its presence indicates a lesion somewhere in the generative organs, and, since this lesion is a malignant one in over one half of the cases, it is our duty to leave no stone unturned in attempting to discover the cause. To treat this symptom without having made every effort to discover the underlying lesion is, in many cases, equivalent to taking from the patient her chance of a cure for a malignant condition. Not over one out of every four cases of genital malignancy in women remains cured for five years or more. This is not a very encouraging showing, and since the improvement in mortality due to x-ray and radium, the figure has remained about constant. There are those who are still hopeful that a general cure for cancer may some day be forthcoming, but, until that time arrives, the best that we can do is to keep hewing away from all angles, hoping thereby to reduce the mortality little by little.

A very important angle of the question is an early diagnosis and this, to a great extent, depends upon the family doctor's interpretation of the early symptoms. There are women who never have a symptom of genital carcinoma until the disease is hopelessly beyond surgical cure. Such cases can only be apprehended by routine pelvic examinations done at regular intervals by competent men. Other women have symptoms but fail to come for examination, either because of neglect or from fear of knowing the truth. Such women can only be reached through education. But there is a third group who do consult their physicians with symptoms which should suggest the possibility of carcinoma, but who, owing to indifference or lack of knowledge on the part of the doctor, are not properly examined or advised. In my experience these patients form a fairly large group, and doctors alone are responsible for its existence. The woman who presents herself shortly after the appearance of postmenopausal bleeding has done her part. If her physician fails to examine and advise her properly, he has not done his.

Because we have frequently seen the symptom of postmenopausal bleeding improperly interpreted, we resolved to determine the pathological lesion back of it in a series of cases from our clinic in order to be better able to judge its significance. All of the patients entering the Johns Hopkins Hospital with postmenopausal bleeding, between January 1, 1919, and January 1, 1935, in which complete pathological and clinical data were available, were studied. Table I shows the relative frequency of the various lesions in the 349 cases.

From the table it is obvious that the most frequent lesion responsible for postmenopausal bleeding is carcinoma of the cervix, occurring in 32.4 per cent. It is well known that carcinoma of the body of the uterus has an older age incidence than carcinoma of the cervix, and yet the latter condition occurs so much more frequently that, even after the menopause, it is more often responsible for bleeding than carcinoma of the body. If we add to the cases of carcinoma of the cervix those of the body of the

---

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

From the Gynecological Department, Johns Hopkins Medical School.

uterus (14.9%), we find the cause of postmenopausal bleeding to lie in cancer of the uterus in 47.3 per cent. Now if we add to this figure the eleven cases of malignant ovarian tumors (3.1%), the five cases of sarcomatous change in myomata (1.4%), the three cases of sarcoma of the endometrium

TABLE 1

INCIDENCE OF VARIOUS LESIONS RESPONSIBLE FOR POSTMENOPAUSAL BLEEDING

	Number	*Per Cent*
Carcinoma of cervix	113	32.4
Carcinoma of body of uterus	52	14.9
Cervical ulceration due to prolapse	37	10.7
Postmenopausal vaginitis	24	6.9
Cervical polypi	23	6.6
No gross or microscopic lesion, cause of bleeding undetermined	23	6.6
Ovarian tumors	20	5.7
Myomata:	17	4.9
Benign, mostly submucous 12		
Sarcomatous change 5		
Endometrial polypi	14	4.4
Chronic endometritis	9	2.6
Sarcoma of endometrium	3	0.9
Hyperplasia of endometrium	3	0.9
Vaginal ulceration from pessary	2	0.6
Urethral caruncle	2	0.6
Ulcer of cervix (etiology undetermined)	1	0.3
Chronic ulcerative vulvitis (etiology undetermined)	1	0.3
Granuloma inguinale	1	0.3
Urethral prolapse	1	0.3
Tuberculous salpingitis and endometritis	1	0.3
Sarcoma of vagina	1	0.3
Carcinoma of rectum, extension to vagina	1	0.3
Total	349	

(0.9%), and the one case each of sarcoma of the vagina (0.3%), and secondary carcinoma of the vagina (0.3%), we have a total of 53.3 per cent of the cases of postmenopausal bleeding in which malignancy of the genital tract accounts for this symptom (fig. 1). In other words, every woman bleeding a year or more after her last period has more than an even chance of suffering from some malignant process. This simple fact warrants the demand for a complete diagnostic study of all such patients.

Another point which became obvious in reviewing these histories was that it is impossible to guess as to the malignant or benign source of the bleeding from the amount or character of the bloody discharge. Some of the cases with the scantiest bleeding proved to be due to malignancy, while in others the most profuse bleeding was due to benign lesions.

Benign Lesions

Important as it is for the practitioner to bear in mind the great possibility of cancer, it is also important for him to remember, and to be able to tell the apprehensive patient, that there is a good chance of a benign lesion being responsible for the bleeding. We found benign lesions responsible for the symptom in 46.7 per cent of the cases. First in incidence among these was ulceration due to trauma of the prolapsed cervix. The bleeding from this usually constitutes a blood-streaked discharge rather than a frank hemorrhage. One point to be kept in mind in such patients, especially if the bleeding be profuse, is that there is always the possible existence of another lesion higher in the uterus which is contributing to the bleeding

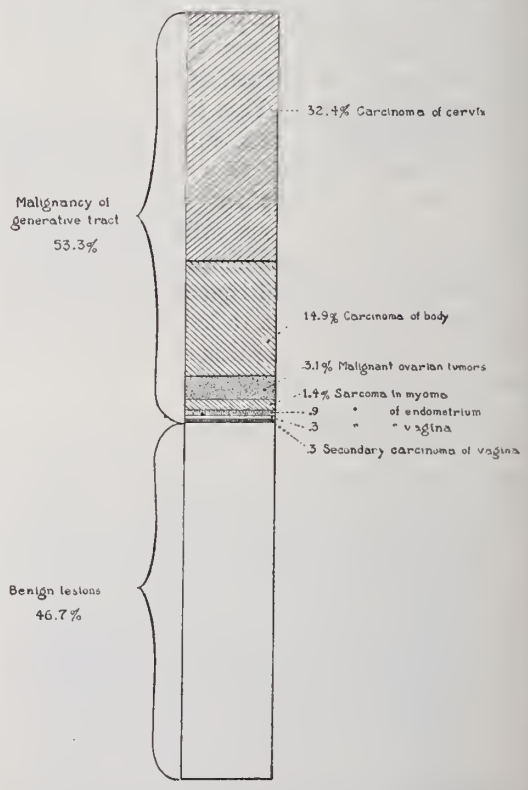


Fig. 1. Diagram illustrating relative incidence of malignant and benign lesions responsible for postmenopausal bleeding.

(fig. 2). Before operative correction of the prolapse is undertaken, a diagnostic curettage should never be omitted.

Next in incidence among the benign lesions is postmenopausal vaginitis. With the withdrawal of the estrogenic hormone, the vaginal mucosa becomes very thin and minute ulcerations are common. The ever-present vaginal bacteria then enter the subepithelial tissue and a discharge results. This is purulent and often blood-tinged. Adhesions frequently form between the ulcerated vaginal surfaces (fig. 3). When these rupture, bleeding may result and at times be surprisingly profuse. The frequency with which postmenopausal vaginitis causes bleeding is greater than is indicated in the 6.9 per cent in this series, for these are all hospitalized cases and the majority of the vaginitis patients are treated only in the out-patient department.

The cervical polyp is no respecter of age. A frequent lesion during the menstrual life of a woman, it also occurs after the menopause. The bleeding is usually not profuse, and a frequent history is slight bleeding after coitus, defecation or straining. Occasionally they give rise to profuse hemorrhage. Although usually there is no difficulty in recognizing these lesions as benign, we have seen cervical polyps which, grossly, looked typically benign that proved to be microscopically malignant. More often a benign metaplastic change in the epithelium may give rise to a lesion which is cancer-like in its general architecture but actually is not

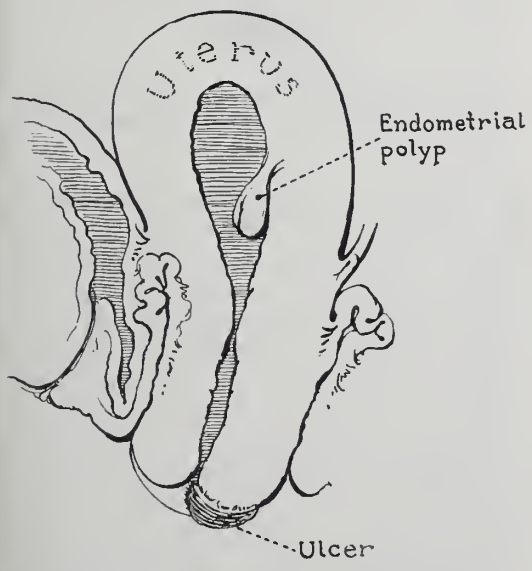


Fig. 2. Uterus of patient who was bleeding after the menopause from a prolapsed uterus. The cervical ulcer was contributing to the bleeding, but the major cause of bleeding was the endometrial polyp.

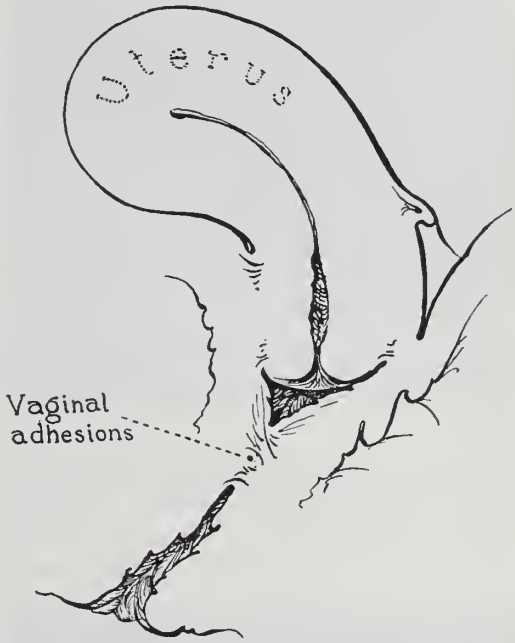


Fig. 3. Diagram illustrating vaginal adhesions formed between inflamed vaginal walls in apposition to one another.

malignant (figs. 4 and 5). The mistaking of these for true malignant or "precancerous" lesions has led to much unnecessary surgery. We feel certain that these cancer-like lesions are not malignant nor even precancerous on the basis of a follow-up of twenty-five such patients over a number of years. All of these remained well after simple removal of the local lesion. The essential point in dealing with cervical polyps is that all should be studied microscopically by one well versed in gynecological pathology.

Benign endometrial polyps also occur in older as well as in younger women. One of the women in this series bled profusely at the age of eighty-five from a large benign endometrial polyp. Curettage is usually curative as well as diagnostic in these cases.

Chronic endometritis was responsible for bleeding in nine patients in this series. The

primary cause of this infection is, in many instances, a cervical stenosis. Just as the vagina contracts after the menopause, so the cervix may contract and adhesions form in

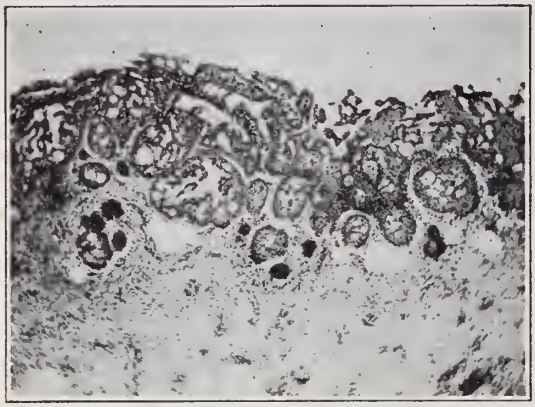


Fig. 4. This adenomatous appearance of epithelium was found on a cervical polyp. The picture is rather typical of an extensive benign metaplastic change.

the cervical canal, more or less occluding it. The inadequately drained uterine cavity becomes infected and a pyometra develops (fig. 6). In five of these nine cases of endo-

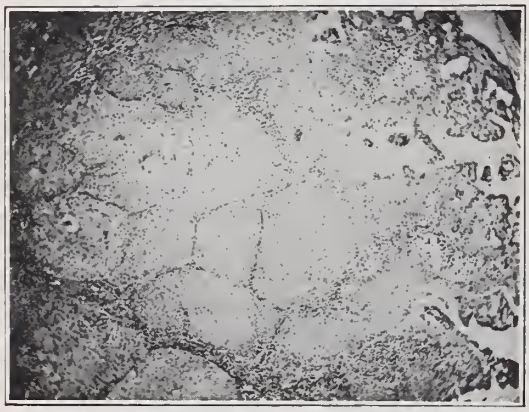


Fig. 5. Extreme benign metaplasia of the epithelium covering a cervical polyp. Under low magnification the picture is almost identical with malignancy, but under higher magnification the individual cells show no malignant changes. The benign nature of the lesion has been proved by follow-up of patient after simple removal of the polyp.

metritis the operator noted the presence of an occluded cervix and pyometra. The characteristic history of these patients is a recurring blood-tinged, purulent discharge, the discharge disappearing when the cervical canal is completely occluded and pouring forth when the intrauterine pressure becomes great enough to open up the passage.

The relation of myomata to postmenopausal bleeding is of the greatest practical importance. Is one justified in assuming that a fibroid, discovered after the menopause, is a satisfactory explanation for bleeding? The results of this study have shown that in most instances the fibroid is incidental and that some other accompanying lesion is responsible for the bleeding. Both benign and malignant lesions were found causing bleeding in the presence of fibroids. There were, however, in this se-

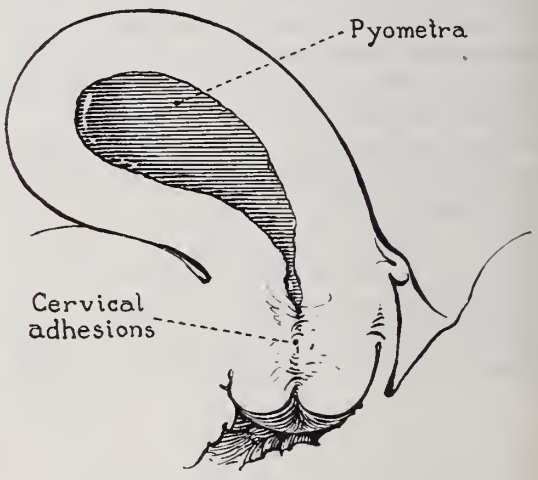


Fig. 6. Complete cervical stenosis with pyometra. The contents of the uterus in these cases is usually blood-streaked pus.

ries, fourteen bleeding women in whom no other lesion was demonstrable except the fibroids. It is important to note that in five of these sarcomatous change had taken place and the breaking down, associated with the malignancy, was the cause of the bleeding. In the remainder of the cases, with the exception of four, the fibroids were submucous and in most instances pedunculated. Apparently it is possible for a fibroid, which is intramural at the time of the menopause, to work its way to the uterine cavity after the menopause, and bleed. In the four cases, in which the fibroids were intramural, it is doubtful whether they were the cause of the bleeding. It is possible that they were only

incidental and that these cases should be classified with the next group in which the cause of bleeding could not be explained.

In this series there were eighteen cases in which no gross or microscopic lesion could be found to account for the bleeding. The question has been raised as to whether hypertension and arteriosclerosis can be responsible for the bleeding in cases such as these. The possibility of apoplexy of the endometrial vessels has been suggested. In these eighteen cases the average blood pressure was not elevated and there is found to be no justification for assuming that arterial disease is responsible for the bleeding. If it were a factor, one would expect to see it more frequently in the great number of hypertensive women after the menopause. For the time being we had better content ourselves with admitting our ignorance as to the cause of the bleeding rather than assume some undemonstrable cause. Our inability to find an explanation, however, in this 6.6 per cent of the cases does not relieve us of the responsibility of a complete investigation in each and every case.

The relation of ovarian tumors to postmenopausal bleeding has, in recent years, renewed interest in the subject of bleeding after the climacteric. Unlike premenopausal or menopausal bleeding, which is so frequently explained on an endocrinological basis, bleeding after the climacteric, for the most part, bears no direct relation to the endocrines. This statement must be made, however, with certain qualifications. The withdrawal of the follicular hormone brings about atrophic changes in the vagina and cervix, which predispose to vaginitis and cervical stenosis and so indirectly may be responsible for the bleeding. This is a negative or withdrawal effect. In bleeding after the menopause associated with granulosa cell tumors of the ovary, however, we have evidence of the positive action of a hormone. It seems clear that these feminizing tumors, through the production of estrin, affect the senile endometrium and stir it to renewed activity. My first case in which this was apparent was that of a woman of sixty-five, who had ceased to menstruate twenty-two years before admission. For six months prior to admission she had bled for a few days at approximately monthly intervals. At operation a uterus was found as large as that of a woman in her menstrual life and a tumor of the right ovary, the size of an

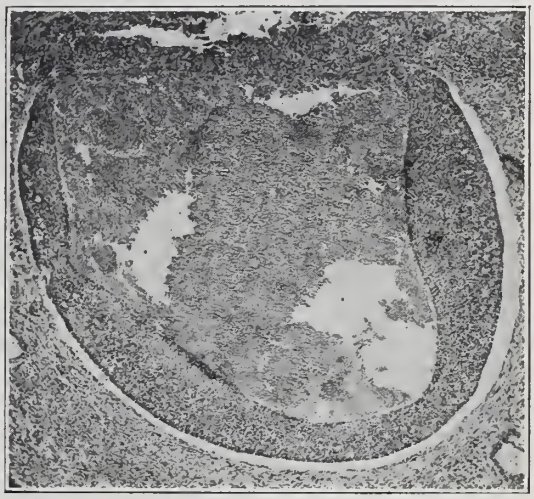


Fig. 7. Section of granulosa cell tumor showing typical follicle-like arrangement of tumor cells. Other areas show these same tumor cells in solid strands.

orange. The tumor proved to be of the granulosa cell type (fig. 7) and the endometrium was markedly hyperplastic, having none of the characteristics of senility. Even

Fig. 8. Minute granulosa cell tumor measuring only 3 mm. in diameter, yet the tumor was apparently responsible for bleeding.

in very small granulosa cell tumors the endometrium almost invariably shows this change. We have seen these same tumors bring about precocious sexual maturity in

very young children. Although granulosa cell tumors do not belong among the commoner types of ovarian neoplasms, they are by no means rare and should be kept in mind in looking for the underlying lesion in cases of postmenopausal bleeding.

These interesting granulosa cell tumors are not the only ovarian neoplasms associated with postmenopausal bleeding. In our series a variety of benign and malignant tumors were found, as shown in table 2.

TABLE 2

TYPES OF OVARIAN TUMORS ASSOCIATED WITH POSTMENOPAUSAL BLEEDING

Cystadenoma	6
Adenocarcinoma	7
Papillary cystadenocarcinoma	1
Dermoid cyst	1
Serous cystoma	1
Fibroma	1
Granulosa cell tumor	2
Brenner tumor	1
Total	20

In going over a series of ovarian neoplasms, occurring after the menopause, we found approximately a fourth of them associated with bleeding. Often bleeding is the first symptom which brings the patient to the doctor. The manner in which these ovarian neoplasms cause bleeding is not always the same nor is it always apparent. In five cases the bleeding was readily explained by an extension of the carcinoma to the body of the uterus. In the other cases of carcinoma, excluding those in which there is a hormonal influence, the cause of the bleeding is only a matter of conjecture, but, none the less, its presence should bring to our minds the possibility of an ovarian neoplasm.

Chronic ulcerative vulvitis, granuloma inguinale, urethral caruncle, urethral prolapse, tuberculous endometritis and sarcoma of the vagina each occurred once in the series and are mentioned only as possible rare explanations of this symptom.

Comment

We have purposely omitted mentioning treatment in this article, for it is our purpose to stress first the necessity of a pathological diagnosis. The indications for treatment are usually relatively simple, once we have established the nature of the lesion. This study has shown that to defer making a pathological diagnosis is to defer proper treatment of malignancy in over 50 per cent of the cases. Bimanual and speculum examinations should be a routine procedure in every case. In more than one half of the cases the diagnosis will become apparent from these two methods of investigation. When these measures fail to reveal the cause, a diagnostic curettage will, in most instances, establish the diagnosis. The patients in which the cause of bleeding is not apparent after these diagnostic measures should not be lost sight of, but be carefully followed, bearing in mind the possibility of an early ovarian neoplasm or a very small carcinoma of the endometrium, which was missed with the first curettage. In a few instances we have been able to diagnose carcinoma of the endometrium on a second curettage when the first showed none. On following a patient with postmenopausal bleeding in whom these diagnostic measures have failed to reveal the cause, an increase in size of an ovary, suggesting beginning neoplasm, is an indication for a laparotomy, provided there is no medical contraindication.

DISCUSSION

Dr. R. S. Cron (Milwaukee): You have listened to a well-presented and most timely paper on an exceedingly important subject. Every physician who heard this presentation or will read it in the future should profit considerably by it. Every woman cared for by a physician who practices that which Dr. TeLinde has preached will be greatly benefited. She will profit from having had a thorough investigation to which she is entitled.

There are many false notions concerning the menopause which have been, and still are, tenaciously held by the laity, and which are accountable for many unnecessary deaths. Unfortunately, the profession, too, is in some measure responsible for fostering these false views. Not so long ago it was customary to "watch" the condition, and when finally the physician awoke to the fact that he was dealing with a carcinoma the patient perhaps had passed beyond the curable stage. Today such dallying is rarely seen. Women, too, have become more cooperative. The physician who without examination casually dismisses these symptoms as due to menopause cannot have, nor does he deserve to have the confidence of the community he serves.

My experience in the diagnosis of the causes for bleeding after the menopause has tallied about the

same as was shown in the percentages presented by Dr. TeLinde. I do not think that a percentage of 53 for malignancy of the generative organs at this period of life is unusually high. The great difficulty in handling this most important problem is that of diagnosis. The malignant lesions of the cervix are obviously the most important. There are two kinds. The first is the squamous cell carcinoma of the portio vaginalis, and the second the adenocarcinoma of the cervical canal. Of the squamous variety there are two types, one in which the malignant cells develop into the cervical tissue, and in the other the malignant cells tend to pile up on the surface. Both cause abnormal bleeding and call for prompt investigation. The squamous cell type is easy to recognize, but the infiltrating carcinoma is often difficult to differentiate from the papillary erosion. Here and in adenocarcinoma palpation may be of value and a sound, gently introduced into the canal, frequently causes bleeding. In the normal cervix gentle manipulation should not produce bleeding.

Adenocarcinoma is obviously the most important lesion of the endometrium that produces bleeding. It is most common in women who have not borne children. The longer after the menopause that bleeding occurs the more probable a carcinoma is responsible. I wish to emphasize the point brought out that many times one sees combined benign and malignant lesions in the generative tract. Last year Dr. Oesterlin and I reported our findings on the co-existence of uterine myomata and fundal carcinoma. Fundal cancer was much more frequent in the myomatous uterus. In ten of the forty uteri containing fundal cancer, myomata were also present.

The majority of the lesions mentioned by Dr. TeLinde are also characterized by discharge. Pain is one of the very late symptoms and, with the exception of large myomata and ovarian tumors, appears late in the history of the disease.

The blind treatment of postmenopausal bleeding by the use of endocrine products or x-ray should be most heartily condemned. As Dr. TeLinde has brought out, an early diagnosis should be made by biopsy of the cervical tissue or examination of material removed by the curette.

In closing, I would like to ask Dr. TeLinde of what practical value he considers the colposcope. Secondly, whether he considers the Schiller test of great value, and thirdly, whether he believes the performance of a biopsy for diagnosis as dangerous a procedure as has been pictured by many authorities. One well-known gynecologist advocates splitting open the entire uterus in order to facilitate the introduction of radium needles or radon implants. To me, it seems that such a procedure or the squeezing of tissue during examination could more easily dislodge living cancer cells forcing them into the lymphatic or blood stream circulations.

Dr. Eric W. Thurston (La Crosse): It would be presumptuous for me to try to add to Dr. TeLinde's paper. I should rather take the risk of seeming trite and emphasize some of the practical aspects of the pathological diagnosis. Many of these you already know.

It is a practice not uncommon for the clinician to accept, more or less unquestionably, the pathological diagnosis of absence of malignancy. This should not deter him, in the face of positive clinical findings, to repeat the examination until he feels certain that he has done his utmost to arrive at a conclusive diagnosis. Naturally it means more expense to the patient and is more time-consuming. However, the reasons for doing so have been reviewed by Dr. TeLinde.

A point which I should like to emphasize is that in removing tissue for pathological diagnosis, be as fair and generous to the pathologist as possible. Secure as large a piece as can be obtained without too much damage to the neighboring tissue. In lesions involving the vulva or cervix, attempt to obtain a section of tissue bordering on the lesion. This more or less "normal tissue" acts as a guide and control in judging the degree of malignancy of the lesion in question.

Some men prefer the cautery in removing tissue. To this method the only objection that I can offer is that of possible damage to the lesion; obviously the possibility is not so great with large lesions as with small ones.

The clinician's request of the pathologist for an opinion as to the degree of radio-sensitivity of the lesion can, in many cases involving the cervix and vulva, prove a great aid in treatment.

I am glad Dr. TeLinde mentioned the unusual causes of postmenopausal bleeding. The granulosa cell tumor should be kept in mind especially, if on curettage, the endometrium is found hyperplastic.

BILLS KILLED BY ADJOURNMENT

With the adjournment of the Wisconsin Legislature on July 2, three pending proposals by Assemblyman Biemiller, Milwaukee, were killed by lack of action. The first of these was a bill calling for a legislative interim committee to study the costs of medical care. Earlier floor discussion had indicated that this bill would be killed when reached.

The second Biemiller measure killed by adjournment was to legalize group hospital insurance. This bill was opposed by the Wisconsin and Catholic Hospital Associations and the State Medical Society.

The third Biemiller proposal was poor relief under the county system. A substitute amendment proposed by the State Medical Society had been submitted but the bill was killed in the "jam" at the end of the session.

The Treatment of Erysipelas

By M. J. FOX, M. D.
Milwaukee

IN RECENT times many therapeutic measures in erysipelas have been developed. All have been suggested by statistical evidence of effectiveness. Regardless of what else was advocated, the use of antitoxin seems to be universal and indeed forms a paramount part of all of the treatment plans for this disease.

Up to the present date, topical applications, roentgen irradiation, ultraviolet irradiation, intramuscular injections of specific antitoxin, or a combination of these measures has been presented by different authorities as the ideal form of therapeutics. Even a "virus" ointment has been used.

In evaluating the comparative methods of treatment the following factors must be considered: (1) The average entire duration of this disease from the date of onset to the date of discharge from the hospital. (2) The average duration of the disease from the time of treatment to the day of discharge from the hospital. (3) The average duration in days from the time of treatment to return of normal temperature, and symptoms. The patients treated at home are difficult to follow and their symptoms difficult to interpret, just as are the patients transferred to a fever hospital, late in the disease. Further, one must consider as a distinct group those patients hospitalized because of some other disease.

In 1926 Birkhaug[1] reported the records of sixty patients treated with erysipelas antitoxin. Prominent clinical features of antitoxin therapy in erysipelas were the sharp diminution of the toxemia, a dramatic drop in temperature and pulse rate as early as twelve to eighteen hours following the intramuscular injection of the antitoxin. The most striking clinical effect noted in patients treated early in the disease, preferably before the third day, were a rapid disappearance and fading of the erysipelatous lesion and the absorption of the vesicles and the pitting edema in affected parts of the body. Although in the late stages of the disease the temperature and pulse yielded slowly to the antitoxin treatment, the relief from the toxic depression was quite marked in twelve to eighteen hours following the injection of the antitoxin.

Lavender[2] reported ninety cases of adult *facial* erysipelas and concluded that ultraviolet ray therapy is preferable. A control series of thirty patients was treated with a 1:1000 solution of aluminum acetate (dilute Burow's solution) in the form of continuous wet compresses. Lavender,[2] concluded that ultraviolet therapy is equal, if not superior, to serum therapy. Aside from the economical aspect, the end results, as indicated by the speedier response to treatment and the fewer complications, make ultraviolet therapy for *facial* erysipelas quite distinctive and indeed the method of choice.

Titus,[3] reported a series of sixty-one cases of erysipelas observed over a period of two years. Eighteen were treated with ultraviolet alone, twenty-three with ultraviolet and serum, and twenty without ultraviolet light. "Of the patients treated with ultraviolet light alone, 50 per cent received only one treatment. The average time for the temperature in these cases to return to normal was 4.83 days, and the total time in the hospital was 9.36 days. The group treated with ultraviolet light and serum combined showed that the temperature returned to normal in 6.95 days and the average stay in the hospital was 11.12 days. The group treated without ultraviolet light showed that the temperature returned to normal in 6.85 days and that the average time in the hospital was 12.55 days."

Ude[4] presented data on 402 hospitalized patients. He concluded that the newer methods of treatment have distinct advantages over the older methods and that the results obtained by either form of irradiation and by antitoxin are approximately the same with slightly more favorable results in the

ultraviolet group. He advocated ultraviolet irradiation as the most readily applicable method, because (a) it is readily available in practically all communities and is devoid of danger as contrasted with roentgen irradiation and antitoxin; (b) it usually requires only one treatment, but the treatment may be repeated several times without the least danger; (c) it is inexpensive; (d) the results are somewhat better than those of any other method of treatment.

Critical Test

Probably the most critical test to which the different methods of treatment may be subjected is a comparison of their effect on the total duration of the disease and the duration of the disease after institution of the treatment. Ude's cases show that the duration of the disease after roentgen irradiation averages two and one third days less than in the control cases, while the ultraviolet series show a corresponding gain of three and one third days. The total duration of the disease has been shortened by four days in the ultraviolet series, while the roentgen irradiation series show a reduction of only 2.31 days.

Symmers[5] reported 3,311 antitoxin cases with a mortality rate of 7.1 per cent compared to 15,277 cases (1904–1927) without antitoxin with a mortality rate of 10.1 per cent. He concluded that the mortality was reduced by 30 per cent apparently as the result of the use of antitoxin therapy.

The antitoxin used by Symmers was prepared by immunizing horses with eight strains of the Streptococcus erysipelatis. The antitoxin was administered intramuscularly. Intravenous administration resulted in alarming symptoms and in several cases fatality. Local applications provide some comfort to the patient.

Antitoxins do not effect a cure in all cases. The first and most important reason for that is the fact that the micro-organism involved may be of a strain not contained in the antitoxin. It is evident that the result in that particular patient is not apt to be satisfactory. The antitoxin of erysipelas is being improved in that respect by the addition of strains of Streptococci isolated from resistant patients. In the use of antitoxin one must consider the age and the general condition of the patient, abnormal conditions such as occur in the alcoholic, the debauched and the debilitated. It has been found that there are about five out of every 100 patients in whom the antitoxin is of no value. It is understood that immunity is not established by this method of treatment. Patients subjected to recurrent attacks of erysipelas are not immune from further attacks nor are the complications lessened.

Nightingale Studies

Nightingale[6] reports a series of fifty-one children under the age of twelve. He concludes that ultraviolet therapy in these has been most successful, least dangerous and the least expensive. On this basis ultraviolet radiation should be put above serum therapy in the treatment of erysipelas.

Seegal[7] reviewed 281 cases at the Massachusetts General Hospital from 1870 to 1927. He showed that 48 per cent of the 281 cases of facial erysipelas occurred in patients after admission to the hospital. About one half of these were medical patients, while the remainder had recently undergone some surgical procedure.

In the group of patients who acquired facial erysipelas in the hospital the condition was diagnosed in only 45 per cent on the same day that a significant fever appeared. Twenty-five per cent of the cases were recognized one day after the rise in temperature; 10 per cent two days after the onset of fever, and 20 per cent not until three or more days after fever had developed. The death rate for facial erysipelas in this series is 19.6 per cent. This high rate in spite of the relatively small number of infants in this group is explained as being due to the hospital rules in regard to the selection of cases. Since one half of the patients were suffering from other diseases before they contracted erysipelas, the death rate for facial erysipelas was about 5 per cent. When patients with other serious illnesses were excluded from the analysis, facial erysipelas extracted its highest mortality toll from the very young and the aged. The necessity of considering the age

incidence in a series in evaluating therapeutic results is at once evident. Eighty-three per cent of the patients in this series who died of facial erysipelas contracted the disease after the admission to the hospital. Since only about one half of the total number of cases of facial erysipelas developed in the hospital, it follows that the mortality rate is much higher among those individuals whose underlying illness was complicated by facial erysipelas than among those who came to the hospital suffering only with erysipelas. Facial erysipelas must, therefore, be considered in the same light as bronchopneumonia in hastening the death of sufferers from chronic progressive and often incurable diseases.

Hoyne[8] reported on 5,666 erysipelas patients at the Cook County Hospital from 1912 to 1933 with a mortality rate of 12.47 per cent. He reported on 1,193 cases from 1929 to 1933 inclusive with a mortality rate of 13.4 per cent. Hoyne comments on an erysipelas Streptococcus antivirus cream which he used in a series of thirteen cases. In the year 1932 he used this cream in 195 cases with a fatality rate of 9.7 per cent. In 1933 there were 209 antivirus-treated cases. Out of the total of 1,193 cases, 417 were treated with antivirus cream. The fatality rate for 417 cases was 11.5 per cent, the same result as with other forms of treatment at the Cook County Hospital. Their interpretation is that erysipelas Streptococcus antivirus cream seemed to do as well as any other method of treatment. The type of patients chosen for this treatment, and whether antitoxin was administered for the systemic control of the toxin, are not mentioned.

Gordon,[9] of Detroit, reports on 1,156 cases for the five-year period of 1927 to 1931 with a fatality figure of 9.5 per cent, although for the year 1932 he reported his rate to be 11.2 per cent.

Milwaukee Cases

I have had opportunity to treat 378 cases of erysipelas at the Milwaukee Isolation Hospital. This series is indeed small compared with others reviewed in larger medical centers, but there are sufficient deductions to be drawn from this small series to establish a therapeutic program. In reviewing the charts it is quite evident that our death rate of 9.52 per cent for total cases compares most favorably with the record of Symmers,[5] who has a rate of 10.8 per cent covering the erysipelas cases at the Belleview Hospital for a period of thirty-five years. The record of Hoyne[8] of 11.5 per cent falls in line with the experience of Birkhaug,[1] Ude[4] and Titus.[3]

CHART 1

SEX INCIDENCE IN ERYSIPELAS

	Male	*Female*
Cases	227	151
Percentage of total cases	60	40

The above 378 cases of erysipelas were observed at South View Isolation Hospital between years 1922 and 1936.

Our records show that 70 per cent of the erysipelas cases responded to any of the conservative therapeutic measures. It is the severe type of cases with the bleb formation that requires specific and vigorous intervention. After having used all of the past remedies, such as milk injections along the line of demarcation, cauterization, adhesive strapping, collodion applications, iron internally and locally, and a multiplicity of measures that have since become passé, along toward 1922 to 1924, I began to use polyvalent streptococcic antiserum, 40 cc. daily, for the severe cases. Eventually, the specific concentrated antitoxin became available. It was comfortative to observe a severe case respond to the use of the antitoxin. In spite of serum, occasional patients continued to have a spreading lymphangitis. I, therefore, followed Titus's[3] recommendation and used ultraviolet therapy. Small doses were valueless and ultimately it was observed that fifteen to twenty erythema-skin doses applied daily to the involved area, and beyond, lessened the acute toxic and febrile stages. There still remained a few cases in which the infection spread, forming numerous vesicles. For these some local application for relief of the burning, itching and local involvement was needed. The use of the paste as a local treatment was discontinued, and, following the results of Lavender,[2] I am now using aluminum acetate 1:1000 (Burow's solution dilute). This is applied as a con-

tinuous wet compress to the area involved for a period of four days.

Chart 2 shows the distribution of the erysipelatous lesions. Approximately 90 per cent are facial. Of those occurring on the face the majority resulted from infections in the nose subsequent to grippe or influenzal infection or nasal operations. Burns, trauma, impetiginous ulcers or surgical procedures accounted for the remainder. A small percentage of the facial erysipelas resulted from a superimposed infection on eczematoid dermatitis of the ears and also following mastoid operations where there was present a chronic eczema. The body and the extremities were affected as follows: the legs 5.8 per cent, body 3.9 per cent and the arms 1.2 per cent. The umbilical erysipelas is included in the body percentages. In the total cases of 378 there were thirty-five deaths or a mortality of 9.52 per cent.

CHART 2

ANATOMIC DISTRIBUTION OF ERYSIPELATOUS LESIONS

	Cases	*Per Cent*
Face	337	89.1
Legs	22	5.8
Body	15	3.9
Arms	4	1.2

The above table points out the anatomic distribution of erysipelatous lesions in a total of 378 cases occurring between 1922 and 1936.

CHART 3

ERYSIPELAS MORBIDITY AND MORTALITY BY AGE GROUPS

Year	*0 to 2 years*		*3 to 12 years*		*13 years and over*	
	Recovered	*Died*	*Recovered*	*Died*	*Recovered*	*Died*
1922	2	0	1	0	7	0
1923	1	0	0	0	23	6
1924	0	0	0	0	25	3
1925	1	0	0	0	16	1
1926	1	0	0	0	20	3
1927	0	0	0	0	23	2
1928	1	1	1	0	44	3
1929	0	0	2	0	16	0
1930	1	1	0	0	28	2
1931	1	2	1	0	29	3
1932	2	0	0	0	23	0
1933	1	1	0	0	17	3
1934	1	0	1	0	10	0
1935	1	0	1	0	20	3
1936	1	1	0	0	8	0
Total	14	6	7	0	302	29
1926	1	0	0	0	20	3
Per cent of mortality	33		0		8.7*	
Per cent of all cases	5.6		2		92.4	

* Of the 29 deaths 12 or 41% were patients over 60 years of age. Of the 29, 9 died of complications. Therefore, the mortality from erysipelas in patients 13 or over was 6.4%.

The above chart shows the incidence and mortality of erysipelas by age groups in 378 patients admitted to South View Isolation Hospital between the years 1922 and 1936. In this period 20 cases were observed in patients of whom the ages were unknown or who were transferred to other institutions before termination of illness.

CHART 4

MORTALITY IN ERYSIPELAS PATIENTS WITH AND WITHOUT SPECIFIC SERUM

	Total cases	*No. of deaths*	*Mortality per cent*
All cases	378	35	9.52
Cases treated with serum	205	18	8.8
Cases receiving no serum	173	17	9.7
Deaths due primarily to erysipelas		26	6.8
Deaths due primarily to other diseases		9	2.7

Chart 5 shows 9.9 average hospital days for this series. Those patients receiving serum averaged 11.2 days compared to those without serum averaging 8.26 days. The increased number of days of those receiving serum was because of the serum reactions.

CHART 5

HOSPITAL STAY OF ERYSIPELAS PATIENTS

	Total	*Average*
Total cases	378	
Total hospital days	3,753	9.9
Cases receiving serum	205	
Hospital days of patients receiving serum	2,308	11.2
Cases not receiving serum	173	
Hospital days of patients not receiving serum	1,429	8.26

The above chart illustrates the total hospital days as influenced by specific serum. However, not all of the patients were admitted to the hospital at the onset of the disease.

As seen in chart 6, the light cases totaled 44.4 per cent, whereas the severe and malignant combined totaled 22.3 per cent.

CHART 6

INCIDENCE AND MORTALITY IN ERYSIPELAS BY DEGREES OF SEVERITY

Degree of Severity	*Deaths*	*Per cent of mortality*	*Cases*	*Per cent of total cases*
Light	0	0	168	44.4
Moderate	1	0.8	126	33.3
Severe	13	19.5	67	17.7
Malignant	12	70.6	17	4.6

Light and Moderate Cases

Much misunderstanding exists with respect to the light and moderate cases. The only cases that are of importance from the standpoint of specific therapy are the moderately severe, severe, and malignant types. The mortality rate for the severe cases was 19.5 per cent, whereas the death rate for the entire series was 9.52 per cent. I wish to direct attention to the results obtained in the entire series and to what I think should be routine care of any case of erysipelas. In interpreting the previous literature, it seemed apparent that the therapy advocated was mostly that successfully applicable to mild and moderate cases. Mild cases, the moderate case, the moderately severe, severe, and malignant cases should receive different treatment.

The ideal treatment is a combination of serum, the ultraviolet ray, and Burow's solution (chart 7). Serum is not necessary in mild or moderate cases and its use is therefore wasteful.

Our hospital records show that the serum-treated cases have the longest stay in the hospital. The use of the antitoxin seemed beneficial only in the severe types of erysipelas. Added to the antitoxin were the ultraviolet treatment and local application of Burow's solution. It is my opinion that mild cases need only have local application of Burow's solution, that the moderately severe cases may be treated with ultraviolet and Burow's solution. In severe infection with high fever, bleb formation, and rapidly spreading lymphangitis, the triad of serum, Burow's solution and ultraviolet rays gives the best results. As a result of the case records in chart 7, it appears just to recommend that the best treatment for erysipelas is the four-vial injection of antitoxin at twelve-hour intervals administered intramuscularly, daily ultraviolet therapy approximating fifteen times the average skin test doses, and a continuous wet compress of Burow's solution. If four vials of serum are used and improvement has not resulted, the serum should be discontinued in order to avoid unfavorable reactions.

Ultraviolet ray was administered daily to the involved area, and slightly beyond, sufficient to produce erythema but never sufficient to produce blebs. This always resulted in improvement within forty-eight hours. Inflammation lessened, the skin became dry and deeper red in appearance. Pain or the burning sensation lessened. Daily ultraviolet exposures were continued until a permanent drop in the temperature occurred. An average of five treatments per patient was required.

CHART 7

SUMMARY OF THERAPEUTIC RESULTS WITH VARIOUS AGENTS CONSIDERING SEVERITY OF INFECTION

	Mild	*Moderate*	*Severe*	*Malignant*
Routine				
Cases	95	45	20	7
Mortality	0	0	25%	100%
Hospital days	7.1	11.5	14.5	--
Serum				
Cases	57	65	35	6
Mortality	0	1.5%	17%	100%
Hospital days	7.8	12.5	16	--
Reaction	0.7%	10%	10%	--
Serum and ultraviolet				
Cases	8	7	5	--
Mortality	0	0	0	--
Hospital days	7.3	9.1	20.5	--
Reaction	0	0	20%	--
Ultraviolet				
Cases	2	3	--	--
Mortality	0	0	--	--
Hospital days	7.5	10.3	--	--
Reaction	0	0	--	--
Serum, ultraviolet, and Burow's Solution (1-1000)				
Cases	6	4	3	--
Mortality	0	0	33%	--
Hospital days	9.3	11.5	20.5	--
Reaction	0	25%	0	--

The above chart shows the total cases, mortality, and average hospital days of erysipelas cases as influenced by the severity of the disease and method of treatment. Treatment labeled "routine" consisted in local applications of $MgSO_4$ packs, boric acid packs, ichthyol ointment, erysipelas cream and other local symptomatic measures.

Although it is often difficult to have access to an x-ray machine and its use is dangerous for those not trained in using it, I include the following course of treatment, as recommended by Fantus[10] in the interest of those for whom it is available and practical: "Roentgen rays, 100 kilovolts unfiltered, in moderated doses (not over one-fourth erythema dose) should be applied and the application repeated not more than once on the

second day, if results have not been satisfactory. It is necessary to include a two-inch margin of apparently uninvolved skin in order to treat all infected areas. Roentgenotherapy is not advisable in the diabetic, the nephritic and young children."

Necrotizing Ulcers Complicating Erysipelas

In this series that I have reported there were eighteen cases complicated by necrotizing ulcers. These ulcers occurred almost immediately with the onset of the disease, as an orbital cellulitis, and eventually presenting a punched-out appearance, a marked edematous base, with a thick, profuse, creamy discharge. The contents were examined and found to contain an organism of the Staphylococcus series. Apparently after the Streptococcus of erysipelas has been established this dermonecrotic organism finds such areas favorable medium. These ulcers heal rapidly. Incision into the surrounding loose tissue is sometimes necessary. The response is favorable and prompt. Occasionally, the necrosis results in excessive scar formation.

Alopecia was noted in four cases without scalp abscesses. These cases had a favorable prognosis, although several months elapsed before growth of hair took place.

A Program for Treatment of Cases

The sharp, severe, and malignant cases should be treated with: (1) Specific antitoxin. The antitoxin should be administered every twelve hours and if at the end of forty-eight hours there is no evidence of response this measure is to be terminated. In fact it is my policy to use only the four vials in every case. I wish to recommend at this point the use of 60 to 80 cc. of human convalescent scarlet fever serum in such cases as have had an exposure to scarlet fever or to other known streptococcic infection. It has been my experience that human convalescent serum has its proper place in this program. The antitoxin seems specific to a limited number of strains and is especially beneficial in the bleb-forming type of erysipelas. It is to be given intramuscularly, whereas the convalescent serum is always to be given in one dose intravenously. It may be well to mention that an ophthalmic protein test or skin sensitization test should be done before the administration of the antitoxin. In this way one can be prepared with proper therapeutic measures for the large percentage of antitoxin reactions that occur.

(2) Ultraviolet is to be given at the earliest possible opportunity and with an exposure fifteen times the skin test dose. If there is no opportunity of grading this dosage, one might state that this dosage should be just below the vesiculating dose, yet producing a very strong erythema. It would be unwise to specify the length of time of exposure because the efficiency of the different ultraviolet lamps decreases with age, necessitating longer exposures. As a rule, after a physician is familiar with his own type of lamp he knows how best to get the short wave lengths in a concentrated form at the proper distance from the patient. Every burner deteriorates with time, and where at the time of purchase an exposure for an erythema may be only one minute, after four months' time it may require ten minutes. Unless there is a semiannual photometer test, the efficiency of a lamp becomes a personal experience to the physician. Therapeutically, experiments by Dr. Stevens at Columbia University point to the conclusion that ultraviolet energy specifically stimulates phagocytosis and increases the local resistance to the sensitizing action of the bacteria. It is my policy to give exposures freely with no limitation to the involved area. It is not necessary to limit it to within an inch or two beyond the area involved, but, on the contrary, a liberal exposure in all directions is preferable. Some authorities insist that one exposure is all that is necessary, but I have found better results with daily exposures.

(3) The application of a 1:1000 Burow's solution is indicated in all cases. It can be carried on as a continuous wet compress. Burow's solution is preferable to all of the ointments. After the febrile stage subsides and desquamation is noted, a weak borated ointment is applied for several days to the involved skin. If abscesses or any second-

ary skin infections occur, these complications should be treated surgically.

Eleven cases of erysipelas and closely allied streptococcic infections at our hospital have been treated with the azo dyes, such as: Prontosil, Prontylin and sulfanilamide.

Of these eleven cases, three had positive blood cultures. These patients recovered from their clinical symptoms or the illness terminated with minor surgical lesions after the seriousness of the conditions had subsided.

Eleven cases is too small a series to make any positive statement, yet it is a sufficient number to warrant advocating the use of this aid in the treatment of hemolytic streptococcic infections. Even with this small series, Prontosil, Prontylin and sulfanilamide may be regarded as additional efficacious drugs.

Three of our patients presented a hematuria and a generalized pink rash after the fifth injection of Prontosil. One of these three patients had a questionable jaundice. Careful adjustment of the dosage of the intramuscular injections and frequent urinalysis are necessary in the use of these drugs.

Summary

Analysis of 378 cases of erysipelas reveals that 89.1 per cent were facial. The mortality rate was 9.52 per cent. The mortality rate of cases treated with serum was 8.8 per cent. The average number of hospital days was 9.9. The average number of hospital days of patients receiving serum was 11.2, while those not receiving serum was 8.26. The mortality rate was greatest in the malignant cases, but of importance in the interpretation was the 19.5 per cent death rate in the clinically severe types of cases. It is in this series forming approximately 30 per cent of the cases that specific therapy is indicated.

Conclusions

1. Mild and moderate clinical types of erysipelas respond to any of the empirical measures.

2. Thirty per cent of the severe cases of erysipelas have an improved mortality rate resultant to the early introduction of specific therapy.

3. Human convalescent scarlet fever serum is useful in the therapy for erysipelas.

4. From all available data and my own experience, the use of (a) antitoxin intramuscularly, (b) ultraviolet rays, (c) local application of Burow's solution, and (d) chemotherapy, is recommended.

REFERENCES

1. Birkhaug, K. E.: The Etiology of Erysipelas. Arch. Path. **6**:441–475 (Sept.) 1928, Abstr., Ann. Int. Med., **2**:524–530 (Dec.) 1928.
2. Lavender, H. J., and Goldman, Leon: Facial Erysipelas, J.A.M.A., **105**:401–403 (Aug. 10) 1935.
3. Titus, N. E.: Erysipelas; Treatment with Ultraviolet Light. Arch. Phys. Therapy, **14**:722–727 (Dec.) 1933.
4. Ude, W. H., and Platou, E. S.: Erysipelas. J.A.MA, **95**:1–4 (July 5) 1930. Ude, W. H.: Erysipelas. Arch. Phys. Therapy, **12**:16–18 (Jan.) 1931.
5. Symmers, D., and Lewis, K. M.: Antitoxin Treatment of Erysipelas, J.A.M.A., **99**:1082–1083 (Sept. 24) 1932.
6. Nightingale, L. M., and Starr, S.: Treatment of Erysipelas in Children, J.A.M.A., **102**:761–763 (March 10) 1934.
7. Seegal, B. C., and Seegal, David: Facial Erysipelas. J.A.M.A., **93**:430–436 (Aug. 10) 1929.
8. Hoyne, Archibald L.: Erysipelas. Med. Rec., **141**: 132–134 (Feb. 6) 1935.
9. Gordon, J. E.: Herman Kiefer Hospital Report, December, 1932.
10. Fantus, Bernard: The Cook County Hospital Therapy of Erysipelas, J.A.M.A., **103**:183 (July) 1934.

The Treatment of Snake Venom Poisoning

By JOHN L. KEELEY, M. D.*
Madison

THE many important studies of snake venom poisoning which have been made both in the field of clinical work and in the laboratory during the past decade have provided a more rational basis of treatment. The therapy as described below is applicable to poisoning following bites by rattlesnakes, water moccasins, and copperhead snakes. They are the three poisonous snakes found in the northern part of the United States.

* From the Department of Surgery, University of Wisconsin Medical School.

Dr. Keeley's present address is Harvard Medical School, Department of Surgery, Boston, Mass.

The fourth poisonous snake of North America is the coral snake which is found only in the southern part of the continent.

Prophylactic Treatment

The improved facilities for transportation have resulted in the migration of urban population to the rural districts for hikes, picnics, and hunting and fishing trips. Such people are not accustomed to being on guard against snakes and as a rule know little or nothing about the first-aid treatment of poisonous snake bites. Distribution of such knowledge is needed.

Since a rattlesnake lying on the ground almost invariably bites his victim below the knee and most frequently on the foot or ankle, the use of knee-high boots would prevent bites in these areas. Collective protection by killing snakes, capturing them alive, or raising animals which kill snakes has been advocated. The effectiveness of such a plan depends on the facilities for completing it and to a large extent on local geographical conditions. Very little success has been attained by such a program.

Active Treatment

The active treatment of rattlesnake venom (crotalin) poisoning, consists of preventing absorption of the venom, removal of the venom, neutralization of the absorbed venom, and general supportive measures to combat the effects of the absorbed but unneutralized venom.

Prevention of Absorption

Weir Mitchell's treatment first emphasized the importance of using a tourniquet for bites on an extremity. Such a constricting apparatus should be under sufficient tension to impede lymph return and should be released every fifteen minutes for one minute to guard against damage to the tissues distal to the tourniquet. The importance of the re-establishment of circulation every fifteen minutes cannot be over-emphasized. Six cases have been reported in which death was due to gangrene.

As the swollen area increases in bites on an extremity, the tourniquet should be moved so that it encircles the leg or arm an inch or two above the proximal limit of the swelling. A level position for the affected extremity is recommended. Elevation would tend to increase return circulation when the tourniquet is released and the dependent position is apt to contribute to the swelling because of gravity.

The victim of a poisonous snake bite should be kept as quiet as possible. He should not be permitted to walk but should be carried. Stimulants are contraindicated because of the liability of increased absorption. Whiskey is no longer used in the treatment of poisonous snake bites.

Removal of the Venom

The second step in the treatment consists of making cruciate incisions through each fang mark into the subcutaneous tissue in an effort to release the injected venom. Suction* is applied to these incisions. The value of the incisions has been questioned even as recently as 1928. Do Amaral[1] advises against the use of incisions. He believed that absorption of the venom was so rapid that sufficient venom could not be released from the bite area to influence the prognosis favorably. Do Amaral injected venom into the tips of tails of mice. The animals died in a short time in spite of the fact that the tails were cut off a few minutes after the injection. It is commonly known among workers with crotalin that the injection of venom into the tail of a dog is followed by severe symptoms of poisoning and death usually results in less than a half hour.[2] The same dose given intramuscularly does not cause death in less than twenty to twenty-four hours.

Laboratory workers of long experience are capable of making intravenous injections into the tails of mice with satisfactory consistency. It is probable that the rapid fatalities of mice and dogs whose tails have been injected with venom are best explained on the basis of intravenous injection.

---

* Suction by mouth may be used in an emergency. An ordinary mechanical suction apparatus such as is used in tonsillectomies is quite satisfactory. The tip of an asepto syringe introduced into the suction tubing permits the large end of the glass barrel to be applied over the incisions. A breast pump of the ordinary type serves adequately.

Incisions made as late as fourteen hours after the bite had been inflicted have released enough venom-laden serum to cause severe symptoms of crotalin poisoning when injected into a dog. The patient in this instance recovered.[2]

Experimentally, it has been shown that venom can be recovered from the bite area even when incisions and suction have been delayed for one hour. Venom-laden serum recovered from incisions after three hours of suction has caused severe symptoms of crotalin poisoning in dogs. In another series of experiments, Jackson[3] demonstrated that the fluid obtained after five hours of suction through an incision over the site of injection of 100 mgm. (about three M.L.D.'s) of venom into a dog did not kill pigeons in doses of 1 cc. It is only necessary to use suction until the venom has been removed, but since it is difficult to determine when this has been accomplished it is well to continue it until the swelling begins to subside.

The spores of the tetanus bacillus and of B. Welchii have been found in a very high percentage of venom samples and in the mouths of poisonous snakes in general and rattlesnakes in particular. These findings have been pointed out as contraindicating incisions in the bite area. "The possibility of inviting infection from these organisms by additional trauma cannot be disregarded."[4] If these incisions are made without any preparatory cleansing or antisepsis of the skin the danger of infection is a definite factor. It seems reasonable to assume that the infecting organisms may have already been introduced in the fang wounds, and, surgically, the best treatment of puncture wounds which have been contaminated by such anaerobes is wide exposure of the tract. B. Welchii depends on the presence of necrotic muscle for the multiplication of its numbers and the elaboration of its toxin. Since most fang wounds do not reach muscle tissue nor do the incisions which are recommended, the danger of infection by B. Welchii would appear to be less of a hazard than the retention of the venom. Another consideration is the paucity of muscle in the regions most frequently bitten (ankle and foot). The rare occurrences of gas gangrene in amputations in these areas compared to mid-calf and mid-thigh amputations is well-known.

Githens[5, 6] writes that the statistics of the Mulford Biological Laboratories contain six instances in which gangrene was a cause of or a factor contributing to the fatal outcome. The gangrene in all of these cases was due to tourniquets which did not allow adequate circulation below the site of their application. There is nothing to suggest that any of these were cases of gas gangrene.

A child bitten by a rattlesnake in May, 1927, apparently recovered from the bite, but developed tetanus one month later. The instance was not regarded by Githens as tetanus due to snake bite.

From the information and statistics available tetanus and gas gangrene are very rare complications of snake bites.

The question of incisions from the standpoint of release of venom seems to be definitely settled. It has been shown experimentally[2] that four M.L.D.'s of venom can be injected into a dog, suction applied to a cruciate incision over the site of the injection and enough venom-laden serum has been recovered to cause the death of two of four dogs, each of which received a fourth of the recovered fluid. The original animal showed no signs of venom poisoning but the reactions of the other animals were those known to be typical of crotalin poisoning. It has also been shown that such fluid can be neutralized by antivenin thus offering further proof that the recovered fluid contained venom unchanged except for dilution with serum.

Poisonous snake venom, and particularly that of the rattlesnake, is very irritating to tissues and must be diluted by lymph and serum before absorption begins. This is the cause of the swelling which occurs about a bite. As the swelling progresses further incisions and suction are indicated. The amount of swelling is a measure of the amount of venom which has been injected.

The practice of introducing potassium permanganate, either in crystal form or in solution, into the incisions made through the fang marks, is not to be recommended. There

is no satisfactory evidence which indicated that such a procedure is of value.[7] On the contrary, wounds to which potassium permanganate has been applied quickly seal over with a dry crust which prevents drainage of the serum and defeats the purpose of the incisions.

Neutralization of the Absorbed Venom

Antivenin* should be used if it is available. It is a horse serum, and the patient's sensitivity should be determined prior to its administration. The injection should be made into the bite area and the surrounding tissue. If the swelling is marked and shows a tendency to increase, more serum should be given, the subsequent injections being made into and above the proximal limit of the swollen area. Deltoid injections are recommended for bites on the upper extremity and gluteal injections for bites on the lower extremity. For bites on flat body surfaces the antivenin should be injected into and about the swelling. The amount of antivenin used is determined by the amount of swelling and the general reaction of the patient.

A rattlesnake injects about 225 mgm. of venom, the moccasin about 150 mgm., and the copperhead about 45 mgm. One ampule of antivenin neutralizes 20 or more mgm. of the venom of any American pit viper (rattlesnake, moccasin or copperhead).

The factors which influence the amount of antivenin needed are: the kind of snake; the tissue into which the venom is introduced; and the amount of venom which has been removed by incision and suction. The initial dose of the venom varies according to the effectiveness of the strike, whether the bite is through clothing, and whether both fangs pierce the skin. Since the body can tolerate comparatively small amounts of venom, the amount of antivenin required to neutralize the venom which is in excess of a sublethal dose will be greater in children and in small adults. The amount and rapidity of appearance of the swelling and the general reaction of the patient are safer guides in antivenin therapy than calculation based on the above-mentioned variables. (Compare cases 1 and 2.) It is a much more common mistake to give too little serum than too much.

Injection of antivenin may be delayed until suction has been used for an hour or so. Suction should not be applied over the site of injection until an hour has elapsed. Effort is thus made to guard against the withdrawal of the antivenin.

The value of antivenin has been questioned recently by Jackson.[6] He has treated many cases by incision and suction alone with a very low mortality. The removal of the venom is the most important part of the treatment, but it does seem wise to abandon entirely the use of an agent which neutralizes venom.

General Supportive Measures

Essex[9] and his associates[8, 9] at the Mayo Foundation have studied the physiologic action of rattlesnake venom (crotalin), and find it very similar to the changes seen in anaphylactic shock or in histamine reaction. Several substances with specific actions such as neurotoxin, cytolysin, hemorrhagin, and hemolysin are said to be present in crotalin. Markowitz, Essex, and Mann[10] have identified the albumin fraction as the portion containing the active principle of crotalin. The latter authors concluded that crotalin was a nonspecific protoplasmic poison. Their work revealed the following facts. Crotalin causes an increase in the volume index of blood due to swelling of the erythrocytes at the expense of the plasma. The cells lose their biconcavity, and this change is soon followed by rupture of the cell membrane and hemolysis. This result is very similar to that obtained by the use of saponin on human erythrocytes. A marked fall in blood pressure is present and this has been shown to be due to peripheral relaxation. Hyperactivity of the gastro-intestinal tract occurs as is evidenced by nausea, vomiting and diarrhea. The bladder becomes contracted and occasionally bronchospasm is present.

The clinical picture seen in severe cases of crotalin poisoning very closely corresponds to the experimental one described above.

* Antivenin is a purified and concentrated serum globulin obtained from the blood of horses which have been highly immunized against the venoms of the North American poisonous snakes of the zoological family Crotalidae, which includes the pit vipers, the rattlesnake, moccasin and the copperhead. The serum is therefore polyvalent. Each ampule contains 10 cc.

The patients in cases 2 and 3 exhibited marked nausea and vomiting. The occurrence of three bowel movements and the involuntary micturation in case 3 indicates the comparatively early systemic reaction in this patient.

Fluids parenterally must be used if the stomach is not retentive. They should be given in rather large amounts (3,000-4,000 cc.). The toxin can be diluted in this way and the fluid losses from vomiting and the suction of the cruciate incisions may be thus combated. The peripheral vascular relaxation may be very difficult to overcome. The use of intravenous normal saline solution containing an average dose of epinephrin was very effective in stabilizing the blood pressure and pulse in cases 2 and 3. Although epinephrin is destroyed quite rapidly in the blood stream the uniform infusion will maintain a uniform moderate rise in blood pressure for a considerable time. Since the fall in blood pressure is believed to be due to peripheral relaxation, as has been shown experimentally, infusion of normal saline solution containing epinephrin as described above is very definitely recommended. Epinephrin characteristically inhibits smooth muscle and this may account for the prompt subsidence of the nausea and vomiting which followed the use of the drug in cases 2 and 3.

Blood transfusion should be used to correct the marked anemia which develops in the severe cases. The general condition is thus improved and convalescence is shortened. Oxygen, administered intranasally, is indicated in severe degrees of collapse. Pain, restlessness and insomnia are treated symptomatically.

Case 1. G. B., a white male farmer, aged twenty-eight years, entered the State of Wisconsin General Hospital July 8, 1935, at 2:50 p. m. At 11 a. m., on the day of admission, he was bitten on his right leg just above the ankle by a snake which he identified as a rattlesnake. Shortly thereafter he was seen by his local physician who incised the area of the fang marks, placed a tourniquet about his leg above the bite, and sent him to the Wisconsin General Hospital.

He was seen in the emergency room and potassium permanganate crystals* were placed in the incisions. Ten cubic centimeters of antivenin were injected intramuscularly above the site of the bite. There was no edema, tenderness, or discoloration of the area present. The patient showed no effects of crotalin poisoning. Suction was applied to the incisions but very little serum was obtained. The tourniquet was released for one minute every half hour, but its use discontinued after four hours because of lack of reaction in the bite area.

On the following day there was slight redness about the bite area, but no other change was noted. The temperature, pulse, respirations, and blood pressure readings remained entirely within normal limits, as did the complete blood count and the urinalysis. The patient was discharged from the hospital on July 10, 1935. At that time the wound was covered by a black crust as a result of the application of potassium permanganate crystals. He was advised to keep a dressing over the wound on his leg until it was entirely healed.

Case 2. A. E., a white male University student, aged twenty-five years, entered the State of Wisconsin General Hospital at 4:00 p. m., July 9, 1935.

Fig. 1. (Case 2) This picture was taken a short time after the patient's discharge from the hospital. The cruciate incisions are well healed. The mark about the leg just above the ankle made by the elastic top of a sock shows the tendency to become edematous which is often a sequel to bites on an extremity.

* The application of the potassium permanganate crystals is not a part of the treatment recommended at the present time.

Two hours prior to admission while climbing on some rocky cliffs, he had been bitten on his right lower leg by a snake which he had identified as a rattlesnake. A companion incised the fang marks with his pocket knife and applied a tourniquet above the bite area. He was then carried about three-quarters of a mile to a car and was brought directly to the Wisconsin General Hospital.

Potassium permanganate crystals* were applied to the incisions and 10 cc. of antivenin were injected intramuscularly above the bite. The right foot and ankle were quite swollen and discolored. The general condition of the patient seemed to be satisfactory except for mild pallor, nausea, and the single occurrence of emesis.

Shortly thereafter, his pallor and nausea increased and emesis occurred several times. Treatment by suction to the bite area was started and the tourniquet was released for one minute every twenty minutes. The second dose of antivenin was given at 10:00 p. m. The swelling in the leg increased and the patient had a poor night.

On July 10, 1935, the patient received another 10 cc. of antivenin and many cruciate incisions were made over the swollen and discolored area, which then extended almost to the knee. Much serosanguineous material was obtained by suction from these incisions. The pulse became very weak and the blood pressure was unstable, the latter varying from 80/50 to zero. A transfusion of 500 cc. of whole blood was given, and the intranasal oxygen at 6 L/min. was started. No improvement followed. The intravenous administration of normal saline solution was begun, 1,000 cc. containing m. VIII of adrenalin being given. The nausea and restlessness soon subsided, and the blood pressure became stable at approximately 100/65.

The subsequent progress and recovery were entirely uneventful except for the persistence of discoloration over a great portion of the right leg and the development of bilateral subconjunctival hemorrhages four days after admission.

The hemoglobin was 70 per cent on admission, and the erythrocyte count was 5,260,000. The lowest readings were 52 per cent hemoglobin on July 14, and a count of erythrocytes was 3,220,000 on July 17. The blood picture steadily improved and on July 26 the hemoglobin determination was 68 per cent and erythrocyte count was 4,390,000.

The patient was discharged in good condition on July 28, 1935.

Case 3. B. A., a white female, aged nine years, entered the State of Wisconsin General Hospital at 12:40 p. m. on July 29, 1935. At 10:15 a. m. on the day of admission the patient had been bitten on her left foot by a snake. A tourniquet was placed about the left ankle after the patient ran about fifty yards. She was taken to a physician who incised the fang marks, placed some antiseptic solution on the area and sent her to the Wisconsin General Hospital. On the way, she became quite ill, vomited about a half cupful of blood, and had three bowel movements.

On admission the patient was very apathetic, the pulse was rapid and weak, but regular. The nausea persisted and involuntary micturations occurred.

Fig. 2. (Case 3) The bite area is represented by the swollen and lacerated tissue at the base of the middle toe. Cruciate incisions into the edematous tissue are immediately followed by gaping. The depressed ring made by the circular opening of the suction apparatus may be seen about some of the incisions. Note that the tourniquet is placed at the upper limit of the swelling. The upper incisions were linear as the swelling was less in those areas.

Multiple cruciate incisions released a considerable amount of serosanguineous material from the swollen area. Suction was applied to the incisions at intervals over a period of one hour. Then 10 cc. of antivenin were injected into and proximal to the swollen area. Suction was renewed after an interval of one hour. This dose was repeated at 6:00 p. m., suction being discontinued for one hour following the injection.

The nausea and emesis continued and the color remained poor. Toward evening the blood pressure became unstable. The pulse became imperceptible and a rectal temperature of 101.8 degrees was recorded. A transfusion of 250 cc. of whole blood was given. This was followed by the intravenous administration of 500 cc. of normal saline solution containing m. IV of adrenalin, given slowly. The quality of the pulse improved and the blood pressure became stable. The swelling slowly increased during the night and at noon on July 30, further incisions were made. These were also treated by suction. Some edema of the face and eyelids was noted.

The blood count on admission was as follows: hemoglobin 55 per cent, erythrocytes 4,810,000 and leukocytes, 27,000, with 87 per cent polymorphonuclear cells. On July 30, the hemoglobin concentration was 45 per cent and the erythrocyte count was 3,210,000. Another transfusion of 250 cc. of

* The application of potassium permanganate crystals is not a part of the treatment recommended at the present time.

whole blood was given. On August 1, the hemoglobin determination was 35 per cent, and erythrocyte count was 1,600,000. These were the lowest levels. The urine on admission contained a few hyaline casts.

On July 31, the face appeared to be less edematous and the swelling of the leg had not increased. Another dose of 10 cc. of antivenin was given, but because of the reaction to the intracutaneous test, it was given at half-hour intervals in 1 cc. doses. The temperature that night reached 103.6 degrees. The patient was given her third transfusion (300 cc.) of whole blood on the following day and steady progress was made thereafter.

The fever and nausea subsided, the appetite increased, and the blood picture gradually improved. The suction was discontinued on August 1, 1935, and magnesium sulphate dressings were used on the leg.

The patient was discharged on August 11, 1935. At that time there were a few of the cruciate incisions over the dorsum of the foot which were not entirely healed.

Conclusions

1. Three cases of poisonous snake bites are presented. The reptiles in two of the instances were identified by the victims as rattlesnakes. The third bite occurred in a rattle-snake-infested area and was caused presumably by a rattlesnake. The subsequent course of the patient's illness justifies this presumption.

2. The physiology of venom poisoning is discussed.

3. Prophylactic measures are suggested.

4. The active treatment is outlined and includes:

(a) the prevention of absorption of the venom by means of a tourniquet for bites on an extremity,

(b) the removal of venom by incisions and suction over the involved area,

(c) the neutralization of venom by antivenin, and

(d) general supportive measures to combat the effects of absorbed but unneutralized venom. Attention is called to the efficacy of normal saline solution containing an average dose of epinephrin slowly administered intravenously to overcome the peripheral vascular relaxation.

REFERENCES

1. Do Amaral, Afranio: Poisonous Snakes and the Treatment of Their Bites. Southwestern Med., **12**:150–157 (April) 1928.
2. Jackson, D.: First-Aid Treatment for Snake Bite, Texas State J. Med., **23**:203–209 (July) 1927.
3. Jackson, D., and Harrison, W. T.: Mechanical Treatment of Experimental Rattlesnake Venom Poisoning. J.A.M.A., **90**:1928–1929 (June 16) 1928.
4. Internat. M. Digest, Symposium Section: Newer Knowledge of Venomous Snakes, **12**:233–252, 1928. Baltimore: W. F. Prior Company.
5. Githens, T. S.: Personal Communication.
6. Githens, T. S.: Snake Bite in the United States. Scient. Monthly, **41**:163–164 (August) 1935.
7. Jackson, D.: Treatment of Snake Bite. South. M. J., **22**:605–607 (July) 1929.
8. Essex, H. E., and Markowitz, J.: Physiology of Rattlesnake Venom. Am. J. Physiol., **92**:317–328 (April) 1930. The Physiologic Action of Rattlesnake Venom (Crotalin). II The Effect of Crotalin on Surviving Organs, ibid. **92**:329–334. The Physiologic Action of Rattlesnake Venom. III The Influence of Crotalin on Blood In Vitro and In Vivo, ibid. **92**:335–341. The Physiologic Action of Rattlesnake Venom. IV The Effect on Lower Forms of Life, ibid. **92**:342–344. The Physiologic Action of Rattlesnake Venom. VI The Effect of Crotalin on a Visceral Organism, ibid. **92**:695–697. The Physiologic Action of Rattlesnake Venom. VII Similarity of Crotalin Shock and Anaphylactic Shock, ibid **92**:698–704. The Physiologic Action of Rattlesnake Venom. (Crotalin). VIII A Comparison of the Physiologic Action of Crotalin and Histamine, ibid. **92**:705–706.
9. Baldes, E. J., Essex, H. E., and Markowitz, J.: The Physiologic Action of Rattlesnake Venom (Crotalin). The Influence of Crotalin on the Viscosity of Blood. Am. J. Physiol., **97**:26–31 (April) 1931.
10. Markowitz, J., Essex, H. E., and Mann, F. D.: The Physiologic Action of Rattlesnake Venom (Crotalin). IX Activity of Protein Fractions of Crotalin. Am. J. Physiol., **97**:22–25 (April) 1931.

A Cleft Palate Repair Technique Affording Better Speech Results

By VOLNEY B. HYSLOP, M. D.

Department of Oral and Plastic Surgery, University of Wisconsin, Madison

IN THE past, oral surgeons have made considerable progress in developing a surgical technique to correct the various types of defects in the hard and soft palates. Arising from these long years of research and experiments, several operative techniques have been developed, which, in the hands of experienced oral surgeons, yield good results

insofar as the mere closing of the defect is concerned.

Little attention has been paid to the speech results obtained, except to note that the speech was improved somewhat. As a whole, speech results in cleft palate correction have been far from satisfactory.

Analysis of a number of cases with poor speech results, after closure of the fissure, revealed the following reasons for the poor results:

(1) shortening of the palate in its anterior posterior dimension,

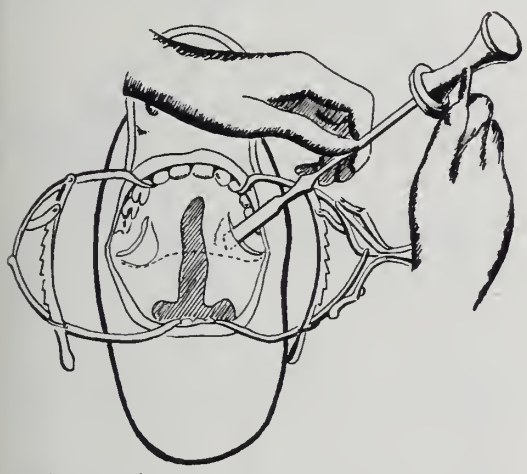


Fig. 1. First step in the new bone flap operation. The chisel is shown as used in separating the bone fragments, and the packing inserted to control hemorrhage on the opposite side as described in the text.

(2) lack of flexibility of the velum and soft palate due to excess scar tissue formation,

(3) the lack of a union of the palatal processes, which act as a sounding board, in the mid-line. Cases with the subperiosteal cleft of the hard palate particularly emphasize this reason,

(4) failure to bring the palatal muscles into their normal positions together with their attachments.

In order to overcome these reasons for failure to obtain good speech results, it became a necessity to modify the operative procedure (Dieffenbach–Warren) which we were using. In modifying the operative procedure, the functions of the palatal and pharyngeal muscles were given primary consideration.

A brief review of the anatomy of the palate and pharynx, at this point, will aid in a clearer understanding of the action of their

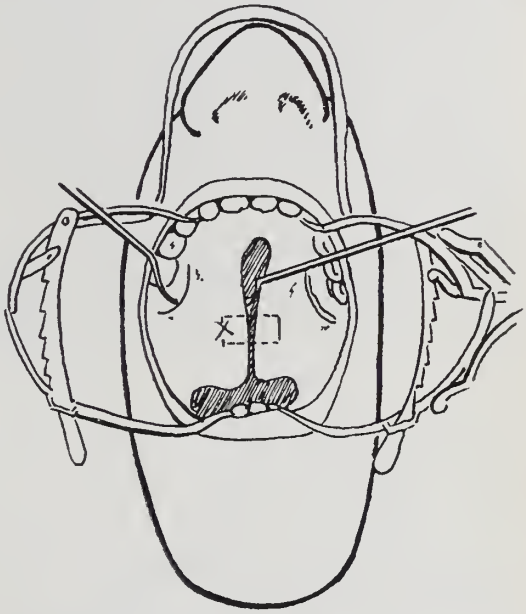


Fig. 2. Passing the silkworm suture through the opening and around the separated bone and overlying tissue, to be again passed in the same way to enclose the bone flap on the opposite side.

muscles. The body of the soft palate is formed by the tendons of the palatal tensors. The tendon of the palate tensor enters the

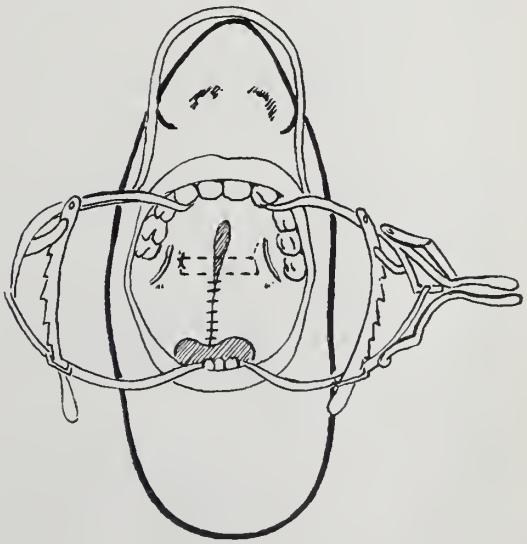


Fig. 3. The first step of operation completed, showing the silkworm-gut suture tied and parts drawn in contact, the packing on each side inserted, and the velum closed. Often it is possible to close quite a little farther forward than is shown in the illustration.

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

pharynx by hooking around the pterygoid hamulus and piercing the buccinator as it does so. After entering the pharynx it spreads out into a thin sheet and is attached to the posterior border of the hard palate in front and ends freely behind. The two tensors become blended in mid-line forming the palatini aponeurosis which encloses the musculus uvulae. Attached to the under surface of the palatal aponeurosis is the glossopalatinus which forms the anterior pillars of the tonsil fauces. Attached to the upper surface of the aponeurosis are the levators, the pharyngopalatinus and those fibers of the superior constrictor which,

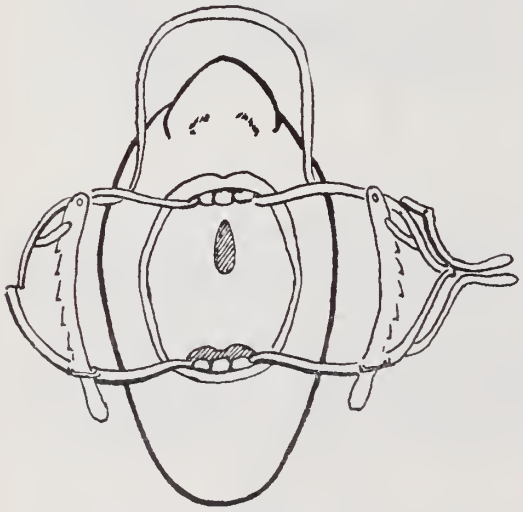


Fig. 4. Showing end result after first stage of operation.

when they contract, form Passavant's cushion on the posterior and lateral walls of the nasopharynx.

Wardill and Willis,[1] according to their studies, summarize the muscles acting on speech as follows: salpingopharyngeal; levator palati with the synchronous contraction of the superior constrictor producing Passavant's cushion.

In addition, the tensor palate should be included because of its function in bringing the body of the palate to its proper tension preparatory to being lifted by the levator palati.

With the idea of bringing the palatal muscles into their normal positions together with their attachments and also of bringing the palatal processes together in mid-line to form a sounding board for the voice, Brown[2] modified the Dieffenbach–Warren operation by creating bone flaps, by fracturing the hamulus process and the palatal process and forcing them into mid-line in contact with its fellow from the opposite side. This procedure, together with the regular staphylor-

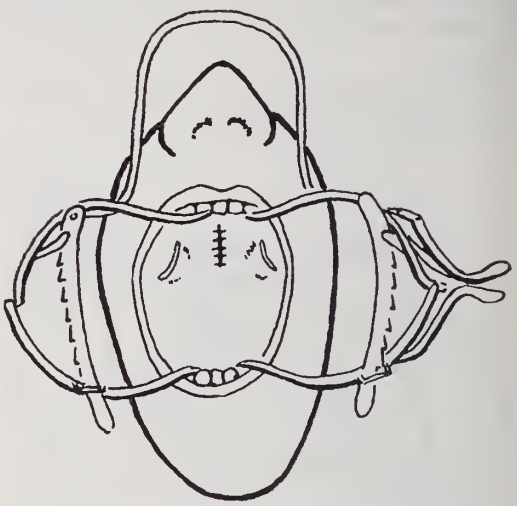


Fig. 5. Second stage of operation using mucoperiosteal flap technique with lateral incisions to close fissure in anterior portion of hard palate.

rhaphy, is considered the first-stage operation and affects, in most cases, complete closure of the soft palate and posterior two thirds of the hard palate. The remaining fissure in the anterior portion of the hard palate is later closed with the regular mucoperiosteal flap technique.

From the surgical standpoint, the bone flap technique uranoplasty has the following advantages also: (1) the blood supply to the soft tissues is not disturbed as much as in the mucoperiosteal procedure, thus affording primary union and therefore less scar formation and greater flexibility of the soft palate; (2) hemorrhage is more easily controlled; (3) operation may be stopped at any time, if the patient's condition becomes unsatisfactory, without endangering the end result.

Conclusion

Operative procedures for correcting palatal defects should be done in such manner as not only to correct the defects, but also

to give as nearly normal speech as possible. This can only be attained by a method which brings the muscles of the palate and their attachments into their normal position; that assures primary union, a minimum amount of scarring, and no anteroposterior shortening of the palate. The bone flap technique uranoplasty and staphylorrhaphy, as a first stage-operation, and the mucoperiosteal flap technique as a second-stage operation, has provided for us a technique which has given better speech results than those previously obtained.

REFERENCES

1. Wardill, W. E. M., and Willis, James: Movements of Soft Palate, With Special Reference to Function of Tensor Palati Muscle. Surg. Gynec. & Obst., 62:836–839 (May) 1936.
2. Brown, G. V. I.: Surgical Treatment of Cleft Palate. New method which is primarily reconstructive application of parts of many old operative procedures revised to form what is in effect a new operation. J.A.M.A., 87:1379–1384, (Oct. 23) 1926.

Current Endocrine Problems in Gynecology*

By ELMER L. SEVRINGHAUS, M. D.

University of Wisconsin, Madison

AT THIS time endocrinology must be regarded as only the beginning of what we hope will ultimately be an important as well as a valuable contribution to the whole symphony of medicine. As I have talked with some of your older members, and in my imagination reviewed the experience in bacteriology in the eighties and nineties, when it seemed foolishness to many people but to some it showed promise, I can realize how visionary endocrinology may seem to some of you today. What I shall present tonight is not a complete, detailed plan of endocrinology. I hope to suggest to you some of the relations as they are now conceived, and to point out a few of the gaps in our knowledge which are particularly important to you in this field of gynecology and obstetrics. In the time at my disposal it would be futile to try to review all the points known about my subject. That was ably done two years ago by Professor Moore. I prefer to take up problems about which there is active debate and to point out what I think is sound ground, hoping at the same time to give you some working concepts and a framework of theory which you can use in the laboratory and clinic during future years. I will take up the different glands of internal secretion one by one.

The thyroid has some importance, not because of its special relation to the generative organs, but, because it is a gland which affects practically every tissue in the body. The thyroid hormone, or thyroxin, we think of as a substance which facilitates the body's capacity to use oxygen, to liberate energy, and therefore to carry out the various vital processes. Whether there is any more specific effect than that on the reproductive system, I doubt. Immediately many of you will recall the well-known clinical experience that certain types of menorrhagia are markedly improved under thyroid therapy whether or not there is a low basal metabolism. To me that does not prove at all that menorrhagia comes from under-function of the thyroid gland. It merely means that by using a very active drug we have been able to check the distressing and sometimes debilitating symptoms of menorrhagia.

You realize even better than I what a complicated problem menorrhagia is. It is dependent on endocrine and possibly other factors. Among those endocrine factors are the rate of supply of follicular hormone and possibly also of the corpus luteum hormone, and more recently it was suggested that the posterior pituitary hormone enters into this picture. We already have laboratory evidence that increased supply of thyroxin tends to offset the activity of the follicular hormone. Perhaps menorrhagia is checked by offsetting the follicular hormone with an increase of thyroid hormone. That is not said to decry the use of thyroid in menorrhagia. For anyone who is much interested in menorrhagia and its attendant causes, I

* Presented at the 500th Regular Meeting of the Chicago Gynecological Society, April 17, 1936.

would suggest study of the endometrium before undertaking therapy with thyroid to find out what thyroid treatment does to the tissue from which the flow comes. I may be unduly enthusiastic about that, but I feel we have learned enough about the endometrium before and after treatment to be sure that here is a technique by which we can obtain objective evidence.

I have said that the thyroid has a general tissue hormonal action on all the parts of the body. That is a general property of all hormones with which we are concerned. These hormones must all be looked upon as substances liberated by specific tissues, which are useful in the body as a means of correlating the activities and communicating impulses from one part of the body to the other, a function like that of the central nervous system but acting more slowly and in a more sustained way. These humoral materials being transmitted by the blood stream will naturally go to all parts of the body. The effects are not limited to any single organ, though they may be more specifically identified there.

Adrenal Cortex

The adrenal glands will interest us primarily from the point of view of the cortex. Here again we have to recognize that the hormone or hormones of this cortex affect a great many different tissues and processes in the body. It may be that there is a more specific connection between the adrenals and the generative apparatus than in the case of the thyroid, but of this we are uncertain. There have been reports that extracts from the adrenal cortex have been able to stimulate the development of the ovaries, suggesting extracts prepared from the anterior pituitary. Whether that means that the adrenal cortex has a real gonadotropic hormone effect, it is too early to say.

All tissues in the body suffer if the adrenal cortex is removed. The removal of the adrenal cortex leads to disturbance in the balance of water, sodium, potassium and sugar, materials which are vital to all living processes, and which shift rapidly and easily. The cortical hormone may be a nonspecific factor which is vastly important, especially in the metabolism of such sensitive tissues as the ovary and the testis. There seems at present to be evidence indicating two hormones from the adrenal cortex, one of which affects part of these processes, for example, control of water, sodium, and potassium, and a second which is related to carbohydrate metabolism. Possibly there is a third, related to the maintenance of muscle strength and endurance. In many cases asthenia is related to some disturbance in these matters of sugar, salt and water metabolism and muscle endurance. Asthenia in various forms is frequently associated with other problems of gynecology. In most of these cases we are not dealing with complete absence, but with quantitative deficiency in the amount of hormone.

Diabetes is a type of disturbance better understood than the adrenal cortex deficiencies, perhaps because we have more outstanding cases, but possibly because we have something with which we can work quantitatively, the presence of sugar in urine and in blood. We now understand diabetes as well as we do thyroid disturbances, but the work of the last few years has thrown new factors into the diabetic riddle. We now recognize that diabetes is not an entity but a clinical condition produced in one of several ways. Sometimes there is more than one factor operating in a given case. Diabetes is a single entity as far as sugar utilization is concerned, but it is not a single etiologic entity as we had thought for many years past.

You are all familiar with the clinical changes in the menstrual rhythm, the volume of flow, and the marked interruption in fertility which are consequent upon the presence of diabetes. We also know many women are regular in spite of diabetes. If you have followed diabetic women through pregnancy and lactation, you have seen the various alterations in sugar tolerance. Some have exacerbations of the diabetes during pregnancy, while in others it becomes more mild. Those who have studied diabetes have learned to make no prophecies as to what the diabetes will do. That merely means, from a clinical point of view, that the obstetrician must either be prepared to watch

the details of conduct of the diabetes or he must have associated with him an internist who can do that for him, the reason being that diabetes is a mixed picture, all the changes of which cannot be predicted.

This variable nature of the disease due to variable etiology and variable intensity of the etiologic factors is again an illustration of a problem which is rather general in this endocrine field. That is, very often these endocrine factors are multiple and there are two or more glands being involved, some overactive, some underactive, and some with changes in their capacities.

The parathyroids are challenging from the point of view of obstetricians because of the demineralization of maternal bone as well as the mineralization of the fetal skeleton. The parathyroids we know are involved in keeping up the levels of phosphorus, calcium, and magnesium. We know that the parathyroid is involved in the development of all the bones and the teeth. It is a very complicated problem, because not only this hormone but also viosterol or vitamin D come into the picture, affecting bone and tooth formation. Sometimes these two things act in the same direction, but they are not identical, either chemically or physiologically. The exact way in which the hormones antagonize each other is a vital question. I cannot say anything concisely that will be of value to you at the present time, but it is a problem of intense importance to the mothers of today and of the future that this be worked out.

Pituitary Glands

The posterior pituitary became important in obstetrics along with the demonstration of an oxytocic factor. There is still a debate as to whether or not there are two separate hormones. I think evidence is increasingly in favor of there being two or more hormones in the posterior pituitary gland, one that is related to the maintenance of a certain amount of contraction of the blood vessels and intestinal muscle, and also related to the kidney; that is the pressor fraction. The second or oxytocic fraction is separate. Whether these two are combined in one molecule, I do not know. We know there is a third fraction which is related to pigments at least in certain species and possibly to the lipoids. This pressor fraction is related to menstrual flow. The work from Hartmann's laboratory indicates that it is necessary to initiate the flow. There came later a report from Smith and collaborators in Columbia that the castrated monkey can be made to flow if nothing is supplied but two ovarian hormones, and that the flow, persistent and essentially normal, can be simulated in the entire absence of any pituitary tissue. The question is still an open one as to whether the posterior pituitary is a necessary factor in precipitating menstrual flow.

The anterior pituitary has had a tremendous amount of attention in the last sixteen years, and with the growing attention, the suggestion of a growing number of hormones. We hope to reduce the number of hormones as we learn more about the extracts of these glands. None of these materials have been secured in a state of crystalline purity. It is important for anyone working with such material to be very specific as to which kind of extract is used. We must keep careful records and not confuse the picture by using different types of pituitary extracts for the same patient. Pituitary extracts produced by two different pharmaceutical houses may be entirely different without the knowledge of the physician. We are particularly interested in the follicle-stimulating or luteinizing hormones because of their relation to the reproductive organs. There is no doubt that there is a specific stimulating effect produced on the gonads by the anterior pituitary. As a result of the work of Dr. Hisaw at the University of Wisconsin in the last eight years, it is almost universally accepted that there are two separate hormones, the follicle-stimulating and the luteinizing.

In this field we must consider such quantitative factors as the size and the frequency of the dose, and the presence of substances which are not inherently endocrine but which may affect the result. For example, Dr. Hisaw has reported that if he uses a mixture of these two extracts subcutaneously he can get a stimulation of the follicle but he has never produced ovulation or a corpus luteum. If, on the other hand, after

stimulating the immature ovary or the ovary of the hypophysectomized animal, he then used the same mixture intravenously, he was able to initiate formation of a corpus luteum. There was no change in the purity of the material; the only change was in the manner of giving the material. Thus, the quantitative factors, that is, the seemingly small features of the routine of the experiment, are of tremendous importance in determining the nature of the result qualitatively. We shall be able to proceed much faster clinically when we have these things in pure solution.

Quantity-Intensity Factors

I call this to your attention at this time because we are, in the last few months, just coming to realize that this quantity factor and this intensity factor are general problems in all endocrinology. They are not limited to the pituitary. Often we find that one hormone augments the effects of another. Then we learn that some hormones are affected by such simple things as calcium and zinc salts which improve the control of diabetes by insulin to which these salts have been added. In the last six months interest in the treatment of diabetes has been renewed by the use of protamine insulinate. This combination of protamine and insulin precipitates, and is insoluble in serum. By administering such a precipitate the action of the hormone does not begin quickly and end quickly. It is much prolonged. Thus we have a new hormone preparation which is made to act more slowly and with enhanced efficiency. This same concept applied to the gonadotropic hormones will be of very great interest in the clinical field of the future.

There is one hormone that exists in the body for a short period and only in the female, the anterior pituitary-like extract which is produced by the placental tissues. It resembles the pituitary secretion grossly but not in minute details. We now know that this material does not stimulate the graafian follicle as the anterior pituitary does, in fact, it inhibits the follicle or in certain cases may actually destroy it. This is prolan, more generally known as A.P.L., and it tends to the maintenance of the corpus luteum. Its function during pregnancy includes maintaining the corpus luteum until such a time as the placental tissue can take up the secretion of progestin and make the production of corpus luteum dispensable. What is the significance of this A.P.L. material in clinical gynecology? I think its use should be limited to those cases in which one wants to maintain the corpus luteum already formed, or in which it is desired to suppress the follicle, that is to say in prevention of threatened abortion after pregnancy has begun. It may have a field in certain types of menorrhagia in which there is no ovulation or formation of corpus luteum, in attempting to suppress follicular activity. As far as we know it has no lasting effect on the graafian follicle. Once the treatment is stopped, follicle development seems to begin again under the influence of the anterior pituitary. A word of caution should be given because of so-called one-child sterility which is not associated with inflammatory pelvic disease, but in which the ovary reverts to the castrate condition after the first pregnancy. We do not know the cause, but we do know that during pregnancy there is a marked change in the pituitary and at the same time this A.P.L. material is secreted. Whether the administration of large doses of A.P.L. may produce this sterility is something we should consider before treating young women in the childbearing period.

Derived Products

The ovarian hormones have given rise to a great deal of hopefulness since we have had methods of standardizing and assaying the extracts. The true follicular hormone has not been used generally in the clinic. What we have used clinically (theelin, folliculin, amniotin and progynon) are not follicular hormones of the ovary. These come from the amniotic liquor or from the urine of pregnant women. They must be regarded as derived products, probably from genuine follicular hormone, and simulating it very closely. The true follicular hormone has been identified in the laboratory, but it is just now becoming available in large enough quantity for clinical use.

All these materials we call estrin or estrogenic substances because they will produce a heat reaction in animals. They will also produce endometrial proliferation, vaginal proliferation, and the development of secondary sex characteristics. All of these materials will relieve climacteric symptoms. They have slightly different activities from those of the true hormone. But they have no harmful influence insofar as we know. Clinically, they are very useful as substitutes for genuine follicular hormone. It is impossible to shift from one product to another and be sure of the clinical results which one can obtain from the identical dose of the second product, since the standardization was made by biological reactions differing from the clinical reaction desired. That will apply similarly to testicular hormones and to compounds obtained from the adrenal cortex. In other words, we are using compounds which are closely related to but not exactly identical with the hormone as it acts in the body.

It will be interesting to point out the follicular hormone effect on the vagina. The last two years witnessed the use of a vaginal suppository containing estrogenic material for the treatment of gonorrheal vaginitis. It has been found more effective than when given hypodermically or orally. That brings in a new element of interest in this endocrine field. We suppose that these endocrines act all over the body. It is possible to get an increased intensity of effect by giving the hormone, in actual contact with the membrane to be affected, the vaginal mucosa. I know that this material can be absorbed from the vagina because I have seen it control the climacteric when given by vaginal suppository.

There is another factor of interest. It has been recently reported that when these cases of vaginitis are treated with estrogenic hormone there is increased acidity of the vaginal secretion. The suggestion was made that possibly this increase of acidity assists the body in throwing off infection by the gonococcus. Whether that is true or not, I do not know. A recent report from German laboratories states that when hormonal treatment is carried out in that way the vagina of the nursing infant girl is found to shed epithelial cells which contain a significant amount of glycogen, which is not true during infancy or childhood. Not only that, but in the secretion from the vagina under such treatment there is also a marked increase in the amount of enzymes which hydrolyze the glycogen to lactic acid. It may be that there is a genuine change in the materials for fermentation by the enzymes, fundamentally a biological change in the vagina. The significance of these facts may not be limited to the problem of gonorrheal vaginitis, which is relatively infrequent, but may apply to the problem of the treatment of Trichomonas infection. By study of the optimum pH for Trichomonas growth there is a possibility that endocrinology, biochemistry and bacteriology may in some way combine to find an effective solution of this bugbear of clinical gynecology, Trichomonas infestation.

Technique of Therapy

For treatment of the climacteric, I shall offer suggestions bearing upon the technique of therapy. All our treatment, some eight or nine years ago, was by hypodermic because the only material we had available and standardized was hypodermic theelin. That was before we had vaginal suppositories and before the material was prepared in a form which could be taken orally. I am convinced that we can relieve the most severe case of climacteric disturbance by oral therapy. The dose is usually five times as great as by hypodermic, but with the lower cost of oral medication there is no reason for hypodermic therapy unless one is conducting experiments. There has been a great vogue in the last few years for using an oily solution of estrogenic material. Since it is supposed that the hormone would be very slow to dissolve out of the oil, we should have a moderate but sustained effect. However, when the globule of oil is put into the tissues this material diffuses rapidly at first and then there is a slow absorption of the remainder. Some good results are seen when women are given such large doses of estrogenic hormones. At first the patient feels worse, then better for perhaps ten days.

Another dose is given and the patient again feels worse and then better. That is not like physiological control. I think it is far better to give small doses daily, or three or four times a day, when large amounts are necessary. There is a further objection to the use of oily materials. They are foreign bodies, and when introduced under the skin sometimes produce irritation. A foreign body will produce a foreign body reaction not only chemically but cytologically. I dislike to produce in a patient a foreign body reaction once a week for two or three years. I hope the manufacturing houses will find a better vehicle than these bland oils.

The second ovarian hormone, progestin, has been poorly understood. We know that it produces the marked secretory changes in the endometrium (premenstrual or progestational) and also it quiets the activity of the myometrium. The problem that confronts us is to get extracts low enough in price and high enough in concentration to use them clinically. These two effects upon the endometrium and myometrium are of much importance in gynecology in the problems of sterility and abortion.

In the study of sterility we should recall that there is another important factor, vitamin E, which has so much to do with the absorption of the products of gestation in some of the experimental animals. We have very little human experience with diet control of such sterile women, but enough to show that the animal work does apply to the human. Therefore, the history taken in cases of sterility should involve the dietary habits as well as conventional pelvic problems.

There are several factors involved in breast control. We know the corpus luteum hormone is responsible for the development of acinous tissue after follicular hormone has produced the duct system. We are usually told that a pituitary factor, prolactin, is responsible for lactation. Recently there has come a report that the breast cannot be developed in spite of giving these two hormones in proper succession, but it can be done if these two and pituitary extract are given. This would suggest that the pituitary must provide not only for the induction of lactation but also some factor in the development of the breast itself. We must look then for a fourth factor, responsible for growth. These factors affecting the breast will need to be taken into account in the study of tumors, cysts, and the painful swellings of non-tumorous type. We know so little about them at present, until we obtain methods of assay for the hormones.

I want to close with a plea that we do not attempt to make too accurate diagnoses until we have methods that are capable of accurate use. The methods of assay for hormones in our day are still very crude. The ones we have applied to the estrogenic hormone are not satisfactory. The methods for finding the hormone in blood and urine are not reliable. Until we get better assay methods, we will have to be satisfied with very limited diagnoses.

Acute and Subacute Upper Respiratory Infections

By JULIAN Y. MALONE, M. D.
Milwaukee

THIS discussion will deal with those infections in which the micro-organism has an affinity for the mucous membranes of the nose and its adjacent structures. It will not deal with the group of infections in which the upper respiratory tract is involved as the portal of entry for systemic infections, such as contagious diseases, etc.

The bacteria responsible for this group of infections are primarily some strain of Streptococcus, Staphylococcus or the influenzal organism. These organisms are present as a virulent strain in epidemics and as a nonvirulent strain most of the time. The part played by "the filterable virus" in causing the common cold is not clear. What is usually thought of as a "filterable virus" probably is not an organism but a chemical product produced by the known bacteria or by the host and being capable of producing

a rhinitis followed by a secondary invasion by the Streptococcus, Staphylococcus or influenza bacillus.

The fundamental process responsible for the different types of infections getting started is usually the same. The difference in the result varies with the type and virulence of the flora present at the time the acute infection starts. The cause is fairly uniform in all cases except epidemic influenza.

This cause was demonstrated very simply but effectively by Goldman, Mudd, and Grant.[1] They demonstrated that, as the external temperature of the body is lowered, the temperature of the mucous membrane of the nose and throat lowers. This occurs if the external temperature is lowered locally or generally.

The lowering of the mucous membrane temperatures was accompanied by an obvious blanching of the mucous membrane. It was noted in the experiments that the mucous membrane temperature may drop five or six degrees and that the return of the temperature to normal takes about twenty minutes. This is the minimum time that the normal blood supply, and incidentally the normal antibody defense, is markedly reduced in the mucous membrane. As a result of the lowered defense, the bacterial flora multiplies rapidly and the severity of the resultant infection depends upon the type and virulence of bacteria present at this time. One must also recognize that it is possible for the virulence of the flora to be so great, or the resistance of the patient so low, that it is not always necessary for the above blanching process to occur in every case. Careful questioning of 650 consecutive cases shows 82 per cent positive histories of exposure preceding the attack.

Thus it seems clear that operation of the mechanism for heat conservation creates a lowered resistance to infection locally. This explains the failure to make prompt adjustment to sudden temperature changes in our environment. The role played by excess humidity or excess dryness upon the erectile tissue and cilia of the nose has not been explained as scientifically as the above mechanism. That they are important factors cannot be doubted and the mechanism of their effect deserves extensive, careful study.

Types of Response

There are three main types of response to these infections: purulent, nonpurulent and allergic. The purulent type is characterized by the usual inflammatory reaction and the symptoms are not usually severe. Unless the purulent infection spreads to the sinuses, the duration of the process is usually short. In the nonpurulent type the products of the infection are so toxic that the cell functions are inhibited to the extent that they are unable to produce mucous and inflammatory products. The mucous membrane has a glistening appearance, is turgescent and somewhat cyanotic. There is fair breathing space and a postnasal dropping. The symptoms may be mild or of such intensity as to be completely disabling. The main symptom is man's most common complaint—headache. The intensity is dependent largely upon whether the patient has spacious or contracted chambers. The headaches include pains, aches, or pressure areas of the head, face, or neck.

The localization of the symptoms is variable. Antral and frontal sinuses give symptoms directly over them. Anterior ethmoids give symptoms over the anterior portion of the vertex. Posterior ethmoids give symptoms over the back portion of the vertex, while the sphenoids give symptoms in the neck often radiating into the shoulders and arms.

Sinus symptoms are usually intermittent, are as a rule worse in the morning, and are relieved as ventilation is established. As the toxic process subsides, the mucous glands become productive, phagocytosis occurs, and abundant discharge follows. This is followed by cessation of the symptoms. We should profit by this information and attempt in our treatment to duplicate this sequence of the recovery process. We can also warn our patients as to the harmful effects of body chilling and drafts.

Cocainization of the nasal ganglion is a valuable aid in differential diagnosis of these symptoms from other types of headaches and intracranial symptoms.

In the allergic type the reaction and symptoms are those usually seen in hay fever, but may occur at any season. Pain seldom accompanies this type of reaction. Hyperplastic areas on the septum and posterior portions, especially of the inferior turbinates, are usually present even when the process is quiet. Destruction of these hypersensitive areas with actual cautery is very effective. I do not think ionization is indicated.

Treatment

The treatment will be considered in the order of its importance.

1. *Chemical.* Comparative studies have been made in a large series of patients over a period of years to determine whether one antiseptic agent is superior to another. In these studies glycerine was combined with argyrol, neosilvol, acriflavine, methylene blue, metaphen (1:2000), and Mercarbolide (1:1000). These combinations were compounded so that the glycerine was not diluted appreciably. Therefore, the hygroscopic and irritating action of the glycerine was uniform. The results with acriflavine, methylene blue, metaphen and Mercarbolide were about equal. Therefore, I feel that the main benefits come from leaving these tampons in the nose two hours. During this time copious quantities of fluid run from the nose. This means that the protoplasm of the cells of the mucous membrane are repeatedly dehydrated and the fluid replaced by fluid from the blood. This in turn brings a fresh supply of nutrition and antibodies to the cells of the mucous membrane, thus enabling the mucous membrane to better combat the infection. In addition to the reduction of the congestion, the circulation and ventilation of the nose and sinuses are improved and phagocytosis is promoted.

In addition to this daily treatment, the patient uses nose drops at home every two to four hours. The drops consist of an antiseptic and ephedrine in water, with 10 per cent acacia added to make the mixture more viscous, approximately isotonic, and still mix with the aqueous nasal secretions in counterdistinction to those put up in oil. One must not overlook the general supportive measures, as bed rest, fluid intake, fruit juices, and regulation of the bowels. Also during the first three days of an attack it is important to give the usual doses of elixir of Copavin each night.

2. *Surgical.* When acute symptoms do not respond to medical treatment, drainage is established surgically in purulent cases. Space and time do not permit comparative consideration of the various procedures and indications in this paper.

3. *Vaccines.* These are of value therapeutically and protectively. I prefer undenatured bacterins injected in increasing doses and followed by ingestion of either Entoral capsules or Oravax enteric tablets at weekly intervals to keep up the heterophile count of the blood throughout the season. It is not felt that vaccines are of much value if the chronic nasal pathology is not corrected first.

4. *Hydrotherapeutic baths.* Rapidly alternating hot and cold baths daily, for cutaneous nerve and vascular exercise, are valuable. This gives better protection against chilling, whether it be local or general.

5. *Diet.* Vitamin balance must be insured. Vitamins A, B, D and G are especially important.

6. *Bacterial.* I have tried to outgrow the pathogenic bacteria with nonpathogenic such as B. acidophilus and B. bulgaricus, without much success. It is now planned to try B. catarrhalis, as it is a normal inhabitant of the nose and is relatively nonpathogenic.

7. *Bacteriophages and lysates.* They have given disappointing results.

8. *Climate.* Warm climates prevent chilling and drafts to a certain degree, but is not foolproof. Its greatest value is the presence of sunshine and the value of the changed environment and the change in humidity.

REFERENCES

1. Mudd, S., and Grant, S. B.: Reactions to Chilling of the Body Surface. Experimental study of a possible mechanism for the excitation of infection of the pharynx and tonsils. J. Med. Res., **40**:53–101 (May) 1919. Grant, S. B., Mudd, S., and Goldman, A.: Experimental Study on Excitation of Infections of Throat. J. Exper. Med., **32**:87–112 (July) 1920; Reactions of Nasal Cavity and Postnasal Space to Chilling of Body Surface; I. Vasomotor Reactions. J. Exper. Med., **34**:11–45 (July) 1921. Goldman, A., Mudd, S., and Grant, S. B.: Reactions of Nasal Cavity and Postnasal Space to Chilling of the Body Surface; II. Concurrent Study of Bacteriology of Nose and Throat. J. Infect. Dis., **29**:151–160 (Aug.) 1921.

Encephalitis With Polyneuritis; Inhalation of Chemical Dust

By STUART A. McCORMICK, M. D.
Madison

THIS case is interesting because it is an example of an industrial disease due to dust inhalation, where the symptomatology tended to obscure the etiology, since the symptoms were not specifically related to disturbance of the pulmonary physiology but were essentially confined to the central nervous system.

Report of Case

Present complaint. A man, aged 47, was referred to the neurological section of the Dane County Clinic on February 1, 1936. His chief complaint was pain over the entire body on exertion, difficulty in walking, and cramps in muscles of legs on lying down.

History of present complaint. The patient stated that he began to have trouble in 1933. The toes on both feet were sore. He could not control his feet, and had difficulty in walking with a tendency to stumble. He experienced shooting pains in his legs, radiating down from spine. At night he had cramps in the muscles of his legs, especially when he moved or stretched. He stated that his condition had become progressively worse since 1933. On November 4, 1935, he was forced to quit work. At the time we saw him his feet felt numb, as though he were walking on a carpet. He was beginning to lose strength in both hands. He stumbled easily and could not walk more than a few blocks. His speech had not been affected. He had had very little headache, no emesis and no sphincteric disturbance.

Past medical history. The patient had never been sick. Several years before, he had fallen eight feet, injuring his back, but had not lost consciousness.

Family history. The patient was born in Illinois, in 1889. He married, but had no family. His mother died at the age of fifty, from unknown causes; his father's whereabouts was unknown. He had one brother, younger, who was living and well; and one sister, older, who had died.

Physical examination. His expression was masklike. He walked stiffly, tending to fall easily; had marked retropulsion and, to a lesser degree, propulsion. The right pupil was smaller and less active to light. Both pupils were irregular, and convergence was impaired. He showed definite lead-pipe resistance in both arms and legs. His heart was slightly enlarged, with crescendo systolic blow at apex; there was occasional irregularity, and systolic blow at base with diastolic roughness at third left interspace. Blood pressure was 124/90.

Neurological examination. Romberg's sign was negative. There was a slight tremor of hands and arms on exertion. No sensory disturbances were evident. His coordination was normal. Abdominal reflexes were present; deep reflexes were hyperactive. No Babinski.

Mental examination. The Binet–Simon test showed his I.Q. to be 52, indicating deteriorated intelligence. Psychoneurotic inventory showed 13 incorrect answers. There was evidence of marked depression and discouragement.

Laboratory findings:

Blood: (January 31, 1936) Hemoglobin 80 per cent; erythrocytes 4,400,000; leukocytes 9,100; neutrophils 78 per cent; large mononuclears 1 per cent; eosinophils 3 per cent; basophils 1 per cent.

Urine: (January 31, 1936) Specific gravity 1.022; reaction alkaline; albumin, slight trace; sugar, slight trace; acetone negative; microscopic, few wbc. in clumps, occasional rbc.

Spinal Fluid: (From another clinic on July 27, 1935.) "Spinal fluid was clear under normal pressure. Gold solution 012210000. Ross–Jones and Noguchi tests faintly positive."

X-ray report: (February 5, 1936) Flat film of chest.

The chest was symmetrical. Diaphragm was regular on both sides. Root shadows were increased, and there was peribronchial thickening throughout both lungs. There was a calcified lesion at the left apex. The heart was slightly increased in its transverse diameter to the left. The aortic knob was prominent.

Summary: Chronic bronchitis. Left apical scar.

A diagnosis of encephalitis with polyneuritis, cause unknown, was made from the above history and findings. It was noted that he had a valvular heart defect, grade one. He was given hyoscine hydrobromide, 1/200 gr., B.i.d.

On February 8, 1936, one week later, he had not improved. Questioned about his occupation, he revealed that he had worked at a battery company, pouring mix, for about ten years. His symptoms began before he left the battery company. On February 18, in response to an inquiry, the battery company advised us that he had worked with manganese dioxide, graphite and acetylene black, in their mill room.

(Continued on page 586)

THE WISCONSIN MEDICAL JOURNAL

The Editorial Board

GEORGE H. EWELL, Madison F. GREGORY CONNELL, Oshkosh S. J. SEEGER, Milwaukee

Editorial Staff

GEORGE H. EWELL, Madison, Acting Medical Editor MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

A. W. ROGERS-------Oconomowoc
FRANK W. POPE----------Racine
JOSEPH DEAN----------Madison
W. CUNNINGHAM------Platteville
A. H. HEIDNER-------West Bend
S. E. GAVIN---------Fond du Lac
H. A. JEGI----------Galesville
G. R. DUER----------Marinette
J. W. LAMBERT----------Antigo
JOSEPH F. SMITH--------Wausau
F. E. BUTLER---------Menomonie
F. G. JOHNSON--------Iron River
JOS. LETTENBERGER-Milwaukee

Annual Subscription--------Three Dollars-Fifty Cents Single Copies--------Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI JULY, 1937 Number 7

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

Honors Richly Deserved

FOR the first time in many years the Council of the State Medical Society of Wisconsin, has elected not to life membership but to honorary membership, one of its active members. Simultaneously the Council commended the recipient of this honor for affiliate fellowship in the American Medical Association, — a recommendation which was adopted by the parent society at its Atlantic City session.

In recognizing a man by honorary membership in the State Medical Society of Wisconsin no man qualifies better than Dr. Benjamin J. Bill, of Genoa City. Born August 24, 1850, in Plainfield, Connecticut, near the home of Israel Putnam of Revolutionary fame, his education was obtained in the common school and seminary. He taught school for a brief period and then began his education to become a physician. He served with a preceptor for a time, then we find him in the City Hospital of Philadelphia training for ward master where he served one year.

In the Spring of 1871, he went to New York City and had charge of two barracks for cases of smallpox. This was during the last world-wide epidemic of smallpox. In 1872 he had one year at the University of Michigan and then followed a few years of endeavor to carry out and complete his medical education. After a two-year course at Rush Medical College, Chicago, he was graduated in 1879 in the same class with Dr. J. B. Murphy. He located at once in Genoa City, at that time called Genoa Junction and carried on his life's work there.

Doctor Bill has served his community well, kept abreast with the progress of medicine, performed the first appendectomy in that part of Wisconsin, and antitoxin was first in his hands. He participated much in the early household surgery of the time, and tribute should be paid him for marked achievement in the practice of rural medicine.

During his busy practice he found time to render much valuable service to his community. He proposed the incorporation of Genoa Junction and changed the name to Genoa City. He served many years on the village school, and county boards and was instrumental in obtaining a county hospital for Walworth County, an institution which is a credit to the medical progress of the community.

He joined the State Medical Society of Wisconsin in 1885 and has been an active

NINETY-SIXTH ANNIVERSARY MEETING

Milwaukee Auditorium, Milwaukee :-: September 15, 16, 17, 1937

member ever since. He was one of six to organize the Walworth County Medical Society and became its first president. He also helped organize the district society and served one year as president. He is a member of many organizations. He joined the American Medical Association in the days of its founder, Nathan Davis, and was also a member of the American Railway Association of Surgeons.

He has been most diligent in attending medical meetings, and feels that his attendance was most helpful in his postgraduate education. He is an ardent supporter of medical meetings.

Doctor Bill is a modest man of interesting and pleasing personality, and holds the respect and reverence of physicians and laymen in his community and throughout the State. Owing to ill health, he has now given up his active practice. His service has been long, faithful and good. May he enjoy his remaining years in the knowledge that he has given high service, frequently under great handicaps, but always well done.

The County Secretary

IN THE organization of medicine to promote the cause of medical science and the joint and indivisible interest of the physician and patient, the real base is the county secretary. He collects the dues; not infrequently he arranges the program; he keeps the books and writes the minutes; he gives of his time to see those citizens who would have the county society consider this or that health program, and he orders the dinners and trusts that he has not ordered for more than will be present. All this we, as members, rather take for granted and indeed if a secretary is a good secretary, we proceed to reelect him year after year, thus recognizing his worth and abilities.

Recognition through re-election is one form. A more appreciated form is a prompt response of the membership to his occasional requests for aid. When he sends a return postcard to ascertain if we will be present,—let us not forget to return it. When he calls for a payment of dues, let us recognize his sacrifice of time by not requiring him to send us a second, third, and even fourth statement. When he asks that we aid in arranging the program, let us accept and do that much to help.

The county secretary gives generously and increasingly of his time in this day of perplexing problems that face medicine. We cannot compensate him by a salary, but at least we can recognize his service in little ways that perhaps will be even more appreciated.

The Patient's Family

A MEMBER of our Society was in the editorial offices recently and we took the occasion to inquire into the health of a member of the family who had had an operation while on a vacation trip.

"I have had a new and illuminating experience," said this physician. "For the first time in many years I have been a member of the patient's family. More than that I am certain that I was an anxious member of the patient's family and, as I look back, I am sure that I asked all the questions which I myself, as a surgeon, have been so prone to answer in a few words or dismiss when talking with members of the family. Out of my experience I have found myself with a new understanding,—a revivified picture, if you please,—of the anxiety of the patient's family. I know that I shall treat them, as well as the patient, in the future."

Is this not something for all of us to think about? Perhaps even in thinking ahead to the next patient to be seen, do we not all tend to fall into what almost might be termed a routine in this matter of relations with the patient's family? Might we not all do a bit more to be the family doctor as well as the efficient physician?

.... THE PRESIDENT'S PAGE ....

Up to the Members

THE legislative situation in Madison with adjournment of the session, so far as the status of the various bills affecting the health problems of the State is concerned, surely must be highly gratifying to all members of the State Medical Society. It has been the most amazing and pleasing experience that I have yet encountered. It has always been my belief, that, fundamentally and at heart, members of the legislature are primarily interested in the welfare of their State from every standpoint, and particularly from the standpoint of public health. I have believed that when their action seemed to indicate disregard of any of these factors, that it was due to a misunderstanding of the actual facts or a misinterpretation of the probable consequences or results. I have always thought, and am now firmly convinced, that if any proposition affecting the welfare of the State is properly presented to the members of the legislature by individuals or groups, who by their special knowledge of some particular type of legislation could intelligently and wisely estimate the effect of such legislation, that the members of the legislature would understand and act for the benefit of their constituents and citizenry of the State.

This is exactly what has occurred this year. The medical profession of this State, as never before, has realized and understood the implication and the ultimate effect on public health of legislation that was introduced. They have, more than ever before, made splendid, unselfish sacrifices and efforts to give to the members of the legislature a clear, unbiased picture as to what the future might be if the proposed laws were enacted. The result speaks for itself.

It is now up to the members of the Society to take upon themselves the real privilege of expressing to each and every member of the legislature their great appreciation for the action taken in the interests of the health of the people of this State. We should all do this promptly, so that every member of the legislature will know that we are truly grateful. Also, we should give them the assurance that we will constantly maintain our interest in their law-making activities, and that we will continue at all times to lend them all aid in properly evaluating any legislation pertaining to public health, so that they can more fully discharge their duty to the State.

S. E. Gavin

Society Proceedings

Barron—Washburn—Sawyer—Burnett

At the meeting of the Barron–Washburn–Sawyer–Burnett County Medical Society on June 1 at the Land O'Lakes Hotel, Rice Lake, the following program was given:

"Foreign Bodies in the Food and Air Passages" —Dr. F. S. Cook, Eau Claire.

"Social Medicine in Vienna"—Dr. William B. Rydell, Rice Lake.

Dane

A county society of rural physicians was organized at a meeting held in Madison on Friday evening, June 4. The membership is made up of physicians living outside of Madison, belonging to the Dane County Medical Society. The society will operate as a unit of the Dane County Society, meetings being held each month on the Friday preceding the meeting of the latter society.

Officers elected at this meeting were: Dr. E. B. Keck, Madison, president; Dr. H. M. Buckner, Mount Horeb, vice president; Dr. I. Schultz, Mazomanie, secretary and treasurer; and Dr. B. W. Shaw, Waunakee, and Dr. A. T. Smedal, Stoughton, members of the advisory board.

La Crosse

The La Crosse County Medical Society held its last meeting of the season on June 23. Dr. William J. Bleckwenn of the Department of Neurology of the University of Wisconsin was the guest speaker. He gave an illustrated talk on "Treatment and Complications of Brain Injury," and also on "Treatment of Barbituric Acid Poisoning with Picrotoxin." Accompanying the speaker and leaders in the discussion were Dr. E. J. Carey, dean of Marquette University School of Medicine, Colonel William McKillip, and Major Frank Matlak.

The meeting and discussion were of unusual interest to all of the rather large number attending.

Washington—Ozaukee

The regular meeting of the Washington–Ozaukee County Medical Society was held at Cedarburg, May 27, at which time Dr. Joseph Lettenberger of Milwaukee gave an interesting address on "The Practical Treatment of Heart Conditions."

Sixth Councilor District

Dr. P. R. Minahan, Green Bay, was elected president of the Sixth Councilor District of the State Medical Society at the banquet closing the annual meeting in Appleton, on May 25. He succeeds Dr. A. E. Rector, of Appleton.

Other officers elected were Dr. A. G. Koehler, Oshkosh, as vice president, succeeding Doctor Minahan, and Dr. E. S. Knox, Green Bay, as secretary-treasurer, succeeding Dr. Guy W. Carlson, Appleton.

The 1938 annual meeting will be held in Green Bay.

Seventh Councilor District

The nineteenth annual convention of the Seventh District Medical Society was held at the Hotel Stoddard, La Crosse, Thursday evening, May 27, at which time the following officers were elected: Dr. A. E. Winter, Tomah, president; Dr. William E. Bannen, La Crosse, vice president; and Dr. Spencer Beebe, Sparta, treasurer. The next meeting will be held in Sparta.

Dr. Russell M. Wilder of the Mayo Clinic, Rochester, Minnesota, was the principal speaker. Others who presented papers were Dr. Wilmer C. Edwards, Richland Center; Dr. Edward Evans, department of orthopedics, University of Minnesota; Dr. R. N. Beiter, department of pharmacology, University of Minnesota; and Dr. M. G. Peterman, department of pediatrics, Marquette University.

Milwaukee Neuro-Psychiatric Society

The annual meeting of the Milwaukee Neuro-Psychiatric Society was held at the University Club on May 27. Dinner preceded the scientific session at which Dr. Sara Geiger was the speaker. Her subject was "The Treatment of Conduct Problems in Penal Institutions."

The following officers were elected:

President, Dr. William C. Liefert
Vice-president, Dr. William H. Studley
Secretary-treasurer, Dr. Gilbert J. Rich
Councilors, Dr. Mabel G. Masten and Dr. D. W. Roberts

The next meeting of the society will be held in September.

Section on Radiology

Between thirty-five and forty physicians attended the thirteenth annual meeting of the Section on Radiology of the State Medical Society held at the Marshfield Clinic at Marshfield on Friday and Saturday, May 21 and 22.

The opening address was given by Dr. H. W. Hefke, Milwaukee, chairman. Among the dozen prominent physicians who spoke was Dr. B. R. Kirklin of the Mayo Clinic.

Friday evening at 6:30 p. m. a dinner was served at the Hotel Charles. Dr. R. P. Potter of the Marshfield Clinic staff was in charge of arrangements.

The meeting in 1938 will be held in Eau Claire. Officers for 1937–1938 are Dr. J. C. Baird, Eau Claire, chairman; Dr. F. C. Christensen, Racine, vice chairman; and Dr. Russell F. Wilson, Beloit, secretary-treasurer.

The Woman's Auxiliary

President—
Mrs C. A. Harper, 520 N. Pinckney St., Madison
President Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior
Hygeia Chairman—
Mrs. H. H. Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

County News Items

Fond du Lac

Mrs. R. G. Mills was installed as president of the Woman's Auxiliary to the Fond du Lac County Medical Society at the final spring meeting on Thursday afternoon, June 10, at the home of Mrs. A. M. Hutter, Fond du Lac.

Other officers are the past-president, Mrs. J. P. Connell; president-elect, Mrs. O. M. Layton; treasurer, Mrs. J. M. Johnson; and secretary, Mrs. A. M. Hutter.

Assisting hostesses at the meeting were Mrs. J. P. Connell, Mrs. C. W. Leonard, Mrs. R. G. Mills, and Mrs. E. H. Pawsat. Tea was served during the social hour by Mrs. Connell and Mrs. Leonard.

Dodge

The Woman's Auxiliary to the Dodge County Medical Society held its regular meeting at the home of Mrs. R. E. Schoen on Friday evening, May 28, at which time Mrs. C. A. Harper of Madison was the guest speaker. Her talk was informative and dealt with the work being done by the auxiliaries throughout the State. Mrs. Harper, who is state president, was presented with a corsage by Mrs. A. M. Rosenheimer, president of the local society, on behalf of that organization.

It was decided at the business meeting to make a layette to present to Mrs. Barton for use in her work as county nurse.

Mrs. G. W. Henika, whose husband practiced medicine in Beaver Dam between 1910 and 1914, accompanied Mrs. Harper to the meeting. Refreshments were served by Mrs. Schoen, the hostess.

Kenosha

Mrs. C. A. Harper, Madison, state president, and Mrs. F. W. Pope, Racine, state treasurer, were guests of honor at the annual June luncheon held by the Woman's Auxiliary to the Kenosha County Medical Society on June 16 at one o'clock at the Kenosha Country Club, with about forty persons, including several Racine visitors, present.

Mrs. Harvey Smith, the speaker of the afternoon, told interestingly of Japan, where she spent some years. She also displayed some Japanese costumes, which were modeled by Mrs. Paul E. Pifer. Mrs. A. L. Mayfield, president, introduced the speakers.

Opening the program were several greatly enjoyed vocal solos by Dr. Palmer Good, who was accompanied at the piano by Mrs. Good.

Mrs. J. P. Graves was chairman of the Luncheon Committee, of which the other members were Mesdames Pifer, E. F. Andre, I. E. Bowing, E. F. Swartout, H. M. Ripley, C. G. Richards, and Charles Ulrich.

Outagamie

For the entertainment of about seventy-five physicians' wives who were in Appleton on May 25 while their husbands attended the meeting of the Sixth Councilor District, the Womans' Auxiliary to the Outagamie County Medical Society gave a bridge party and tea from two to five o'clock Tuesday afternoon at the Hearthstone.

Mrs. David Gallaher was chairman of the committee in charge of the tea, and she was assisted by Mrs. Guy Carlson, Mrs. W. J. Frawley, and Mrs. Donald Curtin, the latter of Kimberly. In the evening members attended a banquet at the Conway Hotel with their husbands.

Rock

The Woman's Auxiliary to the Rock County Medical Society held its May meeting on the twenty-fifth at the Woman's Club in Janesville. Dr. Carl Neupert of Madison, assistant state health officer, was the speaker of the evening, discussing various phases of his work. Mrs. Neupert formerly connected with the city health department, and Miss Eva Louise Hartman, superintendent of Pinehurst Sanatorium, were guests.

Sheboygan

Members of the Woman's Auxiliary to the Sheboygan County Medical Society enjoyed a luncheon at Sharpe's at Elkhart Lake, on Wednesday, June 9, as the concluding event of the season. Spring flowers were decorations at the luncheon

table, and at cards Mrs. T. J. Gunther and Mrs. Walter Ford were high scorers.

Winnebago

Members of the Woman's Auxiliary to the Winnebago County Medical Society gathered for a luncheon meeting as their May session on the twenty-fourth at the home of Mrs. T. D. Smith at Neenah. Mesdames Rogers, Beglinger, and Baxter assisted Mrs. Smith with the luncheon. There was a brief business meeting, after which an informal but delightful program was presented.

Mrs. F. Gregory Connell gave an interesting description of her trip to Mexico, and Mrs. W. N. Linn reported on the book, "Biography of Dr. Trudeau." In addition, Mrs. E. B. Pfefferkorn and Mrs. Smith gave other highlights on the life of Dr. Trudeau.

The final meeting of the Auxiliary for the season was a picnic on June 28.

News Items and Personals

Durnig the latter part of July an orthopedic clinic for crippled children will be held in Superior, under the auspices of the Douglas County Medical Society and the Crippled Children Division of the State Department of Public Instruction.

A field worker of the Crippled Children Division will be in Superior for several weeks prior to the clinic conferring with the physicians and with the parents of crippled children in regard to arrangements for the clinic.

It is planned that the clinic will serve crippled children of Douglas County and also several surrounding counties.

—△—

Dr. Irving B. Shulak, for the last four years susuperintendent of Normandale, Madison, and clinical associate in neuropsychiatry at the Wisconsin Psychiatric Institute, University of Wisconsin Medical School, announces that he will enter private practice limited to neuropsychiatry in Detroit, Michigan, after July, 1937.

—△—

At a meeting on June 3 of the Shorewood Co-operative Club, Shorewood, Milwaukee, Dr. Michael Kasak, clinical director of the Milwaukee Hospital for Mental Diseases, spoke on the subject of insanity.

—△—

Dr. Milton Trautmann, a former Prairie du Sac physician, has taken up his duties with the State Board of Health as medical director of the control of venereal disease, a post created under the terms of the Social Security Act. Selected for this position eight months ago, Doctor Trautman has spent the intervening period doing preparatory work at Johns Hopkins University.

—△—

Dr. Donald Rikkers of Milwaukee was recently appointed assistant medical director of the Northwestern Mutual Insurance Company.

—△—

The Kiwanis Club of Fond du Lac had its weekly luncheon meeting Tuesday noon, May 18, at which time Dr. L. C. Gardner, Fond du Lac physician, gave an address on carelessness in putting foreign objects such as safety pins, tacks, and the like in the mouth.

On April 4 to 8, 1938, the twenty-second annual session of the American College of Physicians will be held in New York City, with headquarters at the Waldorf–Astoria Hotel.

—△—

Dr. Ralph P. Sproule, Milwaukee, was recently elected a fellow of the Laryngological, Rhinological, and Otological Society of America at the convention in Atlantic City, N. J.

—△—

Dr. James C. Sargent, president-elect of the State Medical Society of Wisconsin and clinical professor of urology at Marquette University Medical School, spoke before the Green Bay Rotary Club recently. He discussed medical bills now before the Wisconsin Legislature.

—△—

Dr. J. A. Bargen of the Mayo Clinic, Rochester, Minnesota, was the Charles R. Bardeen Memorial lecturer for the Phi Chi fraternity at a meeting at the Service Memorial Institute, Madison, on May 24. His topic was "Advances in Studies of Intestinal Disorders."

—△—

Dr. Helen Binnie, Kenosha, presented a paper at a convention of the Wisconsin Federation of Business and Professional Women's Clubs at Lake Delton, May 22, 23, and 24.

—△—

Dr. S. L. Henke of Eau Claire, representing the medical profession, led a discussion on socialized medicine at a meeting of the Chippewa Valley branch of the Wisconsin Pharmaceutical Association on Thursday evening, May 27, at the Hotel Eau Claire.

—△—

Dr. John G. Meachem, Jr., Racine, observed his ninety-first birthday on June 10. Doctor Meachem, in his twelve years as chairman of the city board of health, made studies of the conditions resulting in epidemics of typhoid fever and was instrumental in effecting many improvements in the city's water system.

—△—

Dr. H. J. Farrell, Milwaukee, was certified as a specialist by the American Board of Dermatology at a recent examination in Philadelphia.

Dr. D. H. Bruns, located at 709 North Eleventh Street, Milwaukee for the last six years, has given up his private practice to accept a place on the teaching staff of the University of Iowa Medical School.

—△—

Members of the Douglas County Medical Society and other range medical societies attended a banquet meeting of the Duluth Surgical Society in the Hotel Duluth, Wednesday, May 19.

—△—

Dr. William Donohue, Manitowoc, has been elected president of the Holy Family Hospital staff to succeed Dr. J. E. Meany.

—△—

Dr. F. F. Bowman, city health officer of Madison, recently returned from Chicago where he attended a reunion of his class at Rush Medical College.

—△—

Dr. C. W. Lockhart has been appointed health commissioner of the city of Mellen.

—△—

At a meeting of the Rotary Club on Monday noon, June 14, Dr. H. V. Gibson, Eau Claire, director of the Eau Claire County public health unit, delivered an address on "Syphilis," in which he outlined the history of the disease, its methods of attack, and steps being taken to halt its spread in this country.

—△—

The Arveson–Andrews Clinic at Frederic announces that Dr. Chalmer Davee will be associated with the institution. Doctor Davee has been with the student health service for the last year at the Wisconsin General Hospital, Madison.

—△—

A dinner was held in the new addition of St. Mary's Hospital, Watertown, June 8, for about thirty doctors in that locality. Dr. T. F. Shinnick of Beloit was the principal speaker. Other speakers were Dr. E. J. Hoermann, a member of the hospital board of trustees; Sister Superior; and Dr. Otto F. Dierker. Mr. Frank P. McAdams, a member of the hospital board of trustees, served as toastmaster.

BIRTHS

A daughter, Ann, to Dr. and Mrs. C. J. Radl, Wisconsin Dells, on June 2.

A son, Thomas Albert, to Dr. and Mrs. L. O. Mastalir, Burlington, on May 20.

MARRIAGES

Dr. Alexander D. Spooner of Milwaukee and Miss Marcia Judd of Watertown, Connecticut, on June 19.

Dr. William H. MacDonald, Lake Geneva, and Mrs. Benoni O. Reynolds, Lake Geneva, in June 1937.

Dr. Paul C. Wagner, Milwaukee, and Mrs. Irma Groteluesche n, Milwaukee, on April 13.

DEATHS

Dr. Daniel S. Rice, Stevens Point, died on May 26 at his home. He retired from active practice in November, 1932, due to poor health.

Doctor Rice was born on June 4, 1863, at Morrison, Wisconsin. He received his medical education at the University of Illinois College of Medicine, Chicago, from which he was graduated in 1897. He opened offices in Custer, Wisconsin, and two years later moved to Stevens Point, where he practiced until his retirement.

Doctor Rice was a member of the hospital staff of St. Michael's Hospital, and was also a member of the Portage County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Surviving are his widow and two sons, Dr. Rhode Rice, of Stevens Point, and Dr. Maurice Rice, of Madison; and four daughters, Mrs. Richard Jones, of Stevens Point; Misses Madeline and Betty Rice, of Stevens Point; and Miss Ruth Rice, of Madison.

Dr. E. L. Bradbury, Neillsville, died at his home on Thursday, May 13, after an illness of several months. He received his medical education at Rush Medical College in Chicago, from which he was graduated in 1899. For one year he practiced at Melrose and then moved to Neillsville. For some time he served as county physician, which position he held at the time of his death.

Doctor Bradbury was a member of the Clark County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Surviving are his widow and three sons, Dr. Warren Bradbury of Bremerton, Washington; Wendell of Philadelphia; and Lewis in Neillsville.

Dr. Lewis Rothman, Wittenberg, died at his home of pneumonia on May 29, after an illness of only four days. Born in 1861, he was graduated from Rush Medical College, Chicago, in 1887. On April 4 his patients, present and past, gathered in Wittenberg to do him honor on the fiftieth anniversary of his coming to the village. Doctor Rothman is survived by his widow and a son, Dr. Roland Rothman, a dentist in Wittenberg.

Dr. Richard L. Eltinge, clinical director of the Wisconsin Memorial Hospital at Mendota, died on May 21 at the hospital staff quarters of heart disease. He had been ill since last April.

Doctor Eltinge was graduated from the New York Homeopathic Medical College and Flower Hospital, New York, in 1901. He served as a major in the World War from June 1, 1917, to July 1, 1919, as regimental surgeon of the third division of the 38th infantry.

Dr. Eltinge was associated with the Veterans' Administration since 1923, serving at Bronx, N. Y.; Lyons, N. J.; Roanoke, Va., and Fort Lyon, Colo. He came to Mendota on February 1, 1937.

He is survived by his widow and a brother.

Dr. Harvey E. Webb, Milwaukee, died Saturday afternoon, June 12, in his office in the Goldsmith building. His death was due to heart failure.

Doctor Webb had served as secretary and treasurer of the Medical Society of Milwaukee County, and at the time of his death he was a member of the Society's Committee on Postgraduate Instruction. For many years he served as secretary of the St. Luke's Hospital staff, was a fellow of the American College of Surgeons, and a member of the Milwaukee Academy of Medicine. He was also a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association.

During the World War, Doctor Webb saw overseas service as a major. In 1920 he resigned from active service in the army. In the medical reserve corps he held a colonel's commission.

Born in St. James, Minnesota, he received his bachelor's degree from the University of Minnesota and was graduated in medicine from the University of Illinois College of Medicine in 1914. His medical studies were continued at the Army Medical College, Washington, from where he was sent by the army to Harvard University for postgraduate work. He came to Milwaukee in 1926.

Surviving are his widow, two daughters, and a son.

Dr. Walter W. Peck, Darlington, died at his home on Sunday, June 13, following a week's illness. He was born in Darlington in 1860, and received his medical education at Rush Medical School in Chicago. His civic service in Darlington included many years spent as mayor, supervisor, president of the school board, town and city health officer, and in the Masonic Lodge and the Kiwanis Club. He had the distinction of performing the first appendectomy in southwestern Wisconsin.

Dr. William J. Fleming, who had practiced in West Allis for eighteen years, died Friday, June 4, at his home after a year's illness. Born near Oconomowoc in 1888, Doctor Fleming was graduated from the Marquette University School of Medicine in Milwaukee in 1916. During the War he joined the army and served in the neurological department at a French base hospital. He was discharged from the army as a captain in the medical corps.

Doctor Fleming was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association.

He is survived by his widow, three daughters, and a son.

SOCIETY RECORDS

New Members

R. H. Smits, 1263 Main St., Green Bay.
C. J. Hyslop, Tomah.
J. S. Allen, Norwalk.
H. M. Roberts, 7218 W. North Ave., Wauwatosa.
W. H. Oatway, Jr., 1300 University Ave., Madison.
P. H. Fowler, Plain.
Otto Sporleder, Reedsburg.
K. B. Browne, Waukesha.
E. B. Davies, Waukesha.
J. J. Fitzgerald, Eagle.

Changes in Address

Chalmer Davee, River Falls, to Frederic.

M. Trautman, Baltimore, Md., to State Board of Health, Madison.

J. H. Houghton, Philadelphia, Pa., to St. Joseph's Hospital, Milwaukee.

F. W. Pfisterer, Markesan, to 2247 N. 49th St., Milwaukee.

A. H. Robinson, Milwaukee, to Jefferson.

J. E. Mannion, Wisconsin Rapids, to Wagner, S. Dak.

E. L. Watson, Columbus, to Ripon.

C. E. Benson, La Crosse, to Bremerton, Wash.

CORRESPONDENCE

STUART A. MCCORMICK, M. D.
State Bank of Wisconsin Building
One West Main Street

Madison, Wisconsin, May 19, 1937.

Mr. J. G. Crownhart, Managing Editor
The Wisconsin Medical Journal
Madison, Wisconsin

Dear Sir:

Will you permit me to make a reply to Dr. Lorenz's letter?

The only part of the data included in my letter (The Wisconsin Medical Journal, May, 1937, page 389) which may be considered emanating from me personally, is that calling attention to false positive Wassermanns. I did this in a constructive attitude because I feel that if one physician, out of the large number who use the facilities of the state laboratory, has case records of four different patients who had three or four plus Wassermanns on two or more consecutive specimens examined at the state laboratory that were later reported negative by the same laboratory (without having received treatment), serious consideration should be given to the necessity of using some other serological test to check against those blood tests that are found positive. Such a procedure would be in line with the recommendation of the Committee on Evaluation

of Serodiagnostic Tests, United States Public Health Service.

The data used in arriving at the percentages listed for the incidence of syphilis in the state penal and correctional institutions did not come from me personally, but can be found by anyone who wants to look them up in the biennial reports of the Psychiatric Field Service of the State Board of Control.

One of Dr. Richmond's virtues was that he was more interested in gathering facts than in getting publicity. "Get the work done and write afterwards if you have time," was his motto. He got the work done, and he put down the facts by using the Findex system which picks out certain information from each examination done by the service. Among the facts which were tabulated were the number of patients admitted who had plain syphilis, and the number who had syphilis with neural involvement. Every biennial report contains a table which gives the exact incidence of such cases.* By adding these two figures one has the total number that had syphilis for that biennium. By dividing this total number of cases of syphilis by the total number of admissions, one arrives at the percentages quoted in my letter.

The work of the Psychiatric Field Service is essentially a cooperative project between the personnel at the state institutions and those connected with the Field Service itself. Much of the data used in completing the examinations is furnished by the medical personnel at the institution. In some instances many blood specimens are sent for one individual case so that there are duplicates, triplicates, etc. Anyone who thinks that he can arrive at a correct percentage of the incidence of syphilis by counting the number of positive reports against the number of specimens sent in to a state laboratory, does not understand the multifarious means used to confuse laboratories as to the identity of the person's blood submitted, and as to the accuracy of a preceding report.

In the following tables, the first of which is a duplicate of the form found in the Psychiatric Field Service reports,* I shall note the data from which I arrived at my percentages. These figures are arrived at by adding the total number of cases of syphilis found in each biennial report issued for the five bienniums from 1926 to 1936. That this represents the actual data can be attested by the Findex clerk of the Psychiatric Field Service.

If the data reported by Dr. Lorenz is "carefully and conscientiously collected" and "the report is an accurate account of the prevalence of syphilis in our state charitable and penal institutions" then the State can save a considerable sum of money by installing mail-order medical service in the various state institutions. Every two or three years the chief of the service can look over the laboratory reports, in Madison, and find out what is going on in respect to the incidence of disease, and publish this data as scientific evidence of what is going on in various parts of the State. Would this data be superior to that collected from actual examination of the individual patient? I rest my case with the medical profession.

Institution	Wis. State Prison	Wis. Prison, Women	Wis. State Reformatory	Wis. Indust. Home Women	Wis. Indust. School, Boys	Wis. Indust. School, Girls	Males	Females	Grand Total
Admissions, 1926–1936	5,808	209	4,233	615	2,082	940	12,123	1,764	13,887
(1) Lues present	145	9	52	54	6	29	203	92	295
(2) C. S. F. W. positive neurolues	205	17	56	76	1	23	262	116	378
(3) Total	350	26	108	130	7	52	465	208	673
Percentage of patients admitted having syphilis	6	12.4	2.5	21.17	0.3	5.5	3.8	11.7	4.8
Percentages as given in Dr. Lorenz's article	12.5	None given	None given	11.3	2.7	4.6			

(1) Includes only those patients having syphilis without C. N. S. involvement.
(2) Includes only those patients having syphilis with C. N. S. involvement.
(3) Total of (1) and (2).

Yours very truly,

SAM:S STUART A. MCCORMICK, M. D.

* In the biennial report for 1934–36, the table is on page 25.

CONDITIONS IN PERU

Arequipa, Peru, May 14, 1937.

Wisconsin Medical Journal
Madison, Wisconsin
Estados Unidos

Dear Sirs: Upon opening my mail yesterday it was indeed a pleasure to find in it three copies of the Wisconsin Medical Journal. Like seeing old friends again, its pages brought memories of some of them in the articles by such as Drs. John B. Wear, Homer Carter, and others, and the news notes about others. So it was like sitting down and having a professional chat with old acquaintances, for all chats among doctors become professional in a few minutes anyway, no matter what the occasion.

Now we have been in Peru a little more than five months, located in its second largest city. You would doubtless be interested in some of the conditions of medical practice as we find them here. But to introduce this, I might say that this country is made up largely of two great classes: the very rich and the very poor, with a very small but growing middle class. To me this growth in the middle class seems to be a very good sign. It must be remembered that as yet the government accepts very little responsibility for the indigent poor, however, in all justice it must be said that it is taking steps in that direction.

On the other hand, many of the poor are not as yet educated to the advantages of scientific medical treatment. For instance, one man had his tuberculosis "cured" and the mine in which he worked cleansed of its evil influences by cutting off the neck of a llama at the mouth of the mine. However, the man died a few weeks later,—evidently due to the poor technique that was used in the sacrifice of the animal. Such ceremonies are more common among the Indian population. One lady came into this clinic for the treatment of labor. She came with a shoulder presentation and one arm of the baby hanging out. This malposition was blamed to a quarrel with her neighbor in which the neighbor must have performed some enchantment over her. Superstition is a great handicap to the progress of science.

The best doctors advertise here daily. Their advertisements run something like this: name, ex-assistant of a certain service in a certain hospital in Europe, Lima, or the United States; studies and a large practice in Lima and Europe, head of some service in a certain hospital here; specialist, diseases of children; syphilis; diseases of women; eye, ear, nose, and throat; chest and heart; and surgery, using the latest instruments from Paris; then winding up with the location of the office and the office hours. There are no chiropractors here, to my knowledge. It is surprising the degree of good health that the people suffer for the lack of these. After reading the advertisements of quacks in the paper, one is surprised when he thinks that the United States is in such excellent health,—almost without their services.

Fees run about a fourth to a half of what they do in Madison. Thus you see that the doctor hardly gets to specialize or to buy a large assortment of instruments. Some of those in the smaller towns have none at all. Some of these have no syringes or medicines. They will attend a delivery having as their only instruments a pencil and a handkerchief. This seems unreasonable, but it can be proved. These country doctors are often subsidized by government help, but the poverty of the community makes it impossible for them to get ahead even with this subsidy. Many of the better doctors, even in the larger cities, do not make enough to own a car of their own.

This picture may seem a bit drear, but I think it sums up the conditions fairly well. In certain places the doctors are very progressive, and the skill of many matches that found in the United States.

I thank you for sending me these papers.

With best regards to my friends in Wisconsin.

WALDO W. STILES, M. D.

(Editor's note—Doctor Stiles is superintendent of the Policlinica Arequipa, Arequipa, Peru.)

Program Announced For Ninety-Sixth Anniversary Meeting, September 14, 15, 16 and 17

INVITATIONS to appear on the ninety-sixth anniversary scientific program have been accepted by twenty out-of-state speakers and upwards of sixty-five members of the Society. The announcement was made through Dr. James Evans of La Crosse, a member of the Council on Scientific Work. This is the first program which has been prepared by the newly created Council on Scientific Work. In accordance with the action taken by the House of Delegates at their 1936 annual meeting, the Council appointed Dr. William S. Middleton, chairman, Dr. Eben J. Carey, Dr. James A. Evans, Dr. H. A. Sincock and Dr. George Krahn to serve on the committee.

The subject "Preventive Medicine" has been selected by the Council on Scientific Work for the scientific sessions. The program has been arranged to attract the interest of the general practitioner. Problems which confront the physician at the bedside

Members—1937 House of Delegates

Society	*Delegate*	*Alternate*
Ashland–Bayfield–Iron	C. J. Smiles, Ashland	J. M. Dodd, Sr., Ashland
Barron–Washburn–Sawyer–Burnett	A. S. White, Rice Lake	H. H. Schlomovitz, Barron
Brown–Kewaunee–Door	P. R. Minahan, Green Bay	W. W. Kelly, Green Bay
	O. A. Stiennon, Green Bay	W. E. Leaper, Green Bay
Calumet	J. W. Goggins, Chilton	N. J. Knauf, Chilton
Chippewa	W. H. Fortner, Bloomer	A. W. Overgaard, Stanley
Clark	H. H. Christofferson, Colby	M. C. Rosekrans, Neillsville
Columbia–Marquette–Adams	H. M. Caldwell, Columbus	W. H. Costello, Randolph
Crawford	C. A. Armstrong, Prairie du Chien	E. T. Ackerman. Gays Mills
Dane	H. E. Marsh, Madison	W. A. Werrell, Madison
	E. F. Schneiders, Madison	A. R. Tormey, Madison
	L. W. Peterson, Sun Prairie	Louis Fauerbach, Madison
	J. N. Sisk, Madison	M. J. J. Coluccy, Madison
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam
Douglas	H. J. Orchard, Superior	C. W. Giesen, Superior
Eau Claire–Dunn–Pepin	J. C. Baird, Eau Claire	Oscar Knutson, Osseo
Fond du Lac	D. J. Twohig, Fond du Lac	C. W. Leonard, Fond du Lac
Forest	G. W. Ison, Crandon	O. S. Tenley, Wabeno
Grant	E. C. Howell, Fennimore	C. H. Andrew, Platteville
Green	J. F. Mauermann, Monroe	W. G. Bear, Monroe
Green Lake–Waushara	A. J. Wiesender, Berlin	George Baldwin, Green Lake
Iowa	C. J. Metcalf, Dodgeville	W. P. Hamilton, Dodgeville
Jefferson	H. P. Bowen, Watertown	W. S. Waite, Watertown
Juneau	F. H. Ferguson, Elroy	J. S. Hess, Jr., Mauston
Kenosha	A. F. Ruffolo, Kenosha	G. F. Adams, Kenosha
La Crosse	N. P. Anderson, La Crosse	R. L. Eagan, La Crosse
Lafayette	S. A. J. Ennis, Shullsburg	E. D. McConnell, Darlington
Langlade	G. E. Moore, Antigo	W. P. Curran, Antigo
Lincoln	E. O Ravn, Merrill	R. G. Baker, Tomahawk
Manitowoc	R. W. Hammond, Manitowoc	A. P. Zlatnik, Two Rivers
Marathon	S. M. B. Smith, Wausau	E. E. Flemming, Wausau
Marinette–Florence	A. T. Nadeau, Marinette	J. W. Boren, Marinette
Milwaukee	Norbert Enzer, Milwaukee	W. F. Grotjan, Milwaukee
	L. W. Hipke, Milwaukee	E. J. Carey, Milwaukee
	R. P. Sproule, Milwaukee	C. W. Eberbach, Milwaukee
	H. E. Webb, Milwaukee*	S. M. Markson, Milwaukee
	J. W. Smith, Milwaukee	Irwin Schulz, Milwaukee
	William Ryan, Milwaukee	D. D. Mehigan, Milwaukee
	F. W. Mackoy, Milwaukee	Bernard Churchill, Milwaukee
	F. D. Murphy, Milwaukee	Millard Tufts, Milwaukee
	H. W. Powers, Milwaukee	T. J. Howard, Milwaukee
	H. C. Schumm, Milwaukee	Edward Jackson, Milwaukee
	E. L. Tharinger, Milwaukee	H. J. Olson, Milwaukee
	G. W. Neilson, Milwaukee	A. R. Langjahr, Milwaukee
	F. E. Drew, Milwaukee	A. H. Lahmann, Milwaukee
Monroe	A. R. Bell, Tomah	G. C. Devine, Ontario
Oconto	R. J. Goggins, Oconto Falls	W. C. Watkins, Oconto
Oneida–Vilas	W. S. Bump, Rhinelander	O. R. McMurry, Eagle River
Outagamie	A. E. Rector, Appleton	R. T. McCarty, Appleton
Pierce–St. Croix	A. E. McMahon. Glenwood City	O. H. Epley, New Richmond
Polk	R. G. Arveson, Frederic	A. N. Nelson, Clear Lake
Portage	E. E. Kidder, Stevens Point	H. P. Benn, Stevens Point
Price–Taylor	J. D. Leahy, Park Falls	L. E. Nystrum, Medford
Racine	H. B. Keland, Racine	T. C. Hemmingsen, Racine
Richland	George Parke, Viola	B. I. Pippin, Richland Center
Rock	W. J. Allen, Beloit	W. A. Munn, Janesville
Rusk	L. M. Lundmark, Ladysmith	Woodruff Smith, Ladysmith
Sauk	E. V. Stadel, Reedsburg	H. A. Bachhuber, Sauk City
Shawano	A. A. Cantwell, Shawano	F. L. Litzen, Gresham
Sheboygan	W. H. Neumann, Sheboygan	G. J. Hildebrand, Sheboygan
Trempealeau–Jackson–Buffalo	J. P. Reinhardt, Fountain City	R. L. MacCornack, Whitehall
Vernon	W. M. Trowbridge, Viroqua	W. H. Remer, Chaseburg
Walworth	Walter Mauthe, Whitewater	D. H. Jeffers, Lake Geneva
Washington–Ozaukee	J. G. Hoffmann, Hartford	O. J. Hurth, Cedarburg
Waukesha	H. A. Peters, Oconomowoc	Herbert Barnes, Delafield
Waupaca	A. M. Christofferson, Waupaca	R. K. Irvine, Manawa
Winnebago	R. B. Rogers, Neenah	J. M. Conley, Oshkosh
Wood	K. H. Doege, Marshfield	F. X. Pomainville, Wisconsin Rapids

* Deceased.

will be given special emphasis. Dr. Eben J. Carey, together with other members of the Council on Scientific Work, has arranged for a large scientific exhibit which will be coordinated with the scientific program in stressing preventive medicine.

The three-day scientific session of the Society will be preceded by meetings of the Council and the House of Delegates on Tuesday, September 14. All sessions of the House of Delegates will be held in the Schroeder Hotel. All scientific sessions will be conducted at the Milwaukee Auditorium.

Guest Speakers

Out-of-state guest speakers scheduled to appear before the scientific sessions of the Society include Dr. R. A. Kinsella, professor of medicine, St. Louis University, St. Louis, Missouri; Dr. E. L. Eliason, professor of surgery, University of Pennsylvania, Philadelphia, Pennsylvania; Dr. Chevalier Jackson, Philadelphia, Pennsylvania; Dr. J. A. Myers, Minneapolis, Minnesota; Dr. F. C. Rodda, Minneapolis, Minnesota; Dr. Robenstein, New York City; Dr. C. C. Sturgis, professor of medicine, University of Michigan, Ann Arbor, Michigan; Dr. F. A. Willius, associate professor of medicine, University of Minnesota, Minneapolis, Minnesota; Dr. C. A. Aldrich, Winnetka, Illinois; Dr. E. L. Cornell, Chicago, Illinois; Dr. V. J. O'Conor, associate professor, genito-urinary surgery, University of Illinois, Chicago, Illinois; Dr. A. E. Barclay, Oxford, England; Dr. W. C. Menninger, Topeka, Kansas; Dr. R. M. Grier, Evanston, Illinois; Dr. E. T. Evans, assistant professor, orthopedic surgery, University of Minnesota; Dr. E. H. Rynearson, The Mayo Clinic, Rochester, Minnesota; Dr. O. H. Wangensteen, professor of surgery, University of Minnesota, Minneapolis, Minnesota; Dr. J. F. Weir, assistant professor of medicine, University of Minnesota, Minneapolis, Minnesota; Dr. P. H. Garvey, University of Rochester, Rochester, New York; Dr. C. S. O'Brien, professor of ophthalmology, University of Iowa, Iowa City, Iowa; and Dr. J. H. J. Upham, president of the American Medical Association and dean of the Medical School of the Ohio State University, Columbus, Ohio.

The general session will open at 8:00 o'clock on Wednesday morning, with registration in the technical exhibit hall. The entire program for Wednesday, beginning at 9:00 o'clock and ending at 4:35, will be devoted to general sessions. On Thursday morning, beginning at 8:30 a. m., the scientific program will open with a general session. The afternoon of Thursday has been scheduled for sections on:

Obstetrics and Gynecology
Medicine
Urology
Pediatrics
Surgery
Ear, Nose and Throat
Ophthalmology

The meeting on Friday will be devoted to general sessions.

Round Table

Round-table discussions held during the noon hour at previous sessions have proved so popular that the Council on Scientific Work has arranged to have round-table luncheons on both Thursday and Friday noons during the session. Arrangements have been made for eighteen round-table luncheons on Thursday and sixteen round-table luncheons on Friday. A special bulletin will be mailed to each member of the Society giving full details concerning the round-table luncheons, together with a reservation card to be returned to the secretary's office.

Public Health Exhibit

In addition to the general session, the scientific exhibit, and the technical exhibit, the Council on Scientific Work has arranged for a large public health exhibit which will be held in the main arena of the Auditorium and will be open to the public. Dr. Eben J. Carey has made arrangements to secure such outstanding public health exhibits as "The Transparent Woman," "The Family Doctor," and exhibits by the Wisconsin Anti-Tuberculosis Association, the American Medical Association, the American Society for the Control of Cancer, and many other educational exhibits.

Technical Exhibits

The popularity of the annual meeting of the Society is evident by the desire of many firms to exhibit at the time of the meeting. This year enlarged facilities were reserved to accommodate a greater number of exhibitors. Even with the increased facilities it was necessary to advise prospective exhibitors that all of the space in the technical exhibit hall had been reserved within ten days following the announcement and invitation to exhibit.

Exhibitors who have reserved space in the technical exhibit hall are as follows:

Packard Milwaukee Company
Philip Morris and Company
J. B. Lippincott Company
Mead Johnson and Company
E. R. Squibb and Sons
Roemer Drug Company
H. J. Heinz Company
Boehm Surgical Instrument Company
Kremers–Urban Company
Hurley X-Ray Company
U. S. Standard Products Company
General Electric X-Ray Corporation
The Medical Protective Company
The Page Milk Company
H. G. Fischer and Company
Merck and Company, Inc.
Carnation Company
W. B. Saunders Company
A. S. Aloe Company
C. V. Mosby Company
Middlewest Instrument Company
Horlick's Malted Milk Corporation
Lea and Febiger
Milwaukee Optical Mfg. Company
The Arlington Chemical Company
V. Mueller and Company
Mellin's Food Company
Gerber Products Company
Petrolagar Laboratories, Inc.
Scanlan–Morris Company
Kelley–Koett Manufacturing Company, Inc.
The Borden Company
Lederle Laboratories, Inc.
Kellogg Company.

Report of the Atlantic City Session of the American Medical Association

THE House of Delegates of the American Medical Association met in almost continuous session during the recent meeting of the American Medical Association held at Atlantic City. The sessions of the House were characterized by extended consideration of problems affecting the delivery of medical service. The House considered such significant questions as social security legislation, medical care of the indigent, the development of a "national health policy," cooperative medical service, contract practice, examination of school children by family physician, and the question of birth control and contraceptive devices.

Special Journals—Upon recommendation by the Board of Trustees of the Association, the House of Delegates recommended to the constituent state medical associations that they call to the attention of their members the value of the special journals published by the American Medical Association and urge their members to subscribe to the journals.

Reapportionment of Delegates—The representation of the state societies in the House of Delegates was reapportioned so that one delegate is seated in the House for every 825 members of the American Medical Association. This reapportionment of representation to the House of Delegates does not affect Wisconsin. Wisconsin is still entitled to three delegates to the American Medical Association.

Examinations of School Children—The House of Delegates recommended that school boards be urged to place the name and the address of the family physician on the school health card of each child. The regular examination of the school child should be made by the family physician and the schools accept that examination. One of the reasons advanced for the adoption of this resolution was that this would make it possible for the school authorities to advise the family physician of any illness or accident encountered by the school authorities in connection with their work with the school child.

Preventive Medicine — The House of Delegates urged that the subject of "preventive medicine" be stressed during the next year both in the state and county medical society meetings, and special efforts be made by the societies to bring to the attention of the public the value of preventive medicine.

Inspection and Rating of Hospitals—The House urged that some means be provided by the Council on Medical Education and Hospitals for an inspection to be made and a rating given hospitals that are not now approved by the Council on Medical

Education and Hospitals, or by the American College of Surgeons.

Group Hospitalization—The House of Delegates acted to limit the contract provisions of group hospitalization plans. By action of the House of Delegates only the common services of a hospital are to be included in group hospitalization plans. Such services as room, board, nursing, common drugs, and surgical dressings may be included in group hospitalization contracts, but the contracts should not include provision for services beyond those enumerated.

Revocation of License — The Legislative Committee of the Board of Trustees recommended to the constituent state medical societies that efforts be made to amend the Medical Practice Act in various states so that court action would not be necessary to revoke the license to practice medicine.

American Farm Bureau Administration — The American Farm Bureau Administration, through their Committee on Medical Care, requested from the American Medical Association a cooperative study to include the following subjects:

(a) A careful study of the problems by all groups concerned with the delivery of medical care.
(b) That local county medical societies work out the problem of the delivery of medical service with local farm groups.
(c) The prevailing price of farm products should be taken into consideration in studying the problem.
(d) That a revision be made in the charges made for house calls in rural communities.
(The Committee on Medical Care of the American Farm Bureau Administration stated that no revision had been made in charges for rural house calls to conform to the increased speed of transportation. The charge of $1 per mile, which is universal, was established at a time when physicians made their house calls in the country using the transportation of a horse and buggy. This, the American Farm Bureau Administration felt, should be revised to conform to the present speed of transportation.)
(e) Special attention should be directed toward the practice of fee splitting.

The House of Delegates referred this communication to the Committee on Legislation and Public Relations of the Board of Trustees.

Blood Groupings—The House recommended that the nomenclature of blood groupings established by the League of Nations be accepted.

Council on Awards—A new council of the American Medical Association was established to grant an annual award for outstanding and meritorious contributions to the science of medicine. Any member of the American Medical Association may nominate a physician for this award. All nominations for this special award must be in the hands of the special committee two months prior to the annual session of the American Medical Association. The special committee appointed is to submit to the Board of Trustees five nominations for the award. The Board of Trustees, in turn, is to select three nominees for this award and submit their selections to the House of Delegates of the American Medical Association who would select one person to receive this award.

Appeal From Expulsion Proceedings—The Judicial Council of the American Medical Association recommended to the House of Delegates that a time limit be placed upon the period during which decisions from expulsion proceedings should be heard by the Judicial Council. The House of Delegates accepted the recommendation of the Judicial Council and adopted an amendment to the By-Laws which limits the period during which appeals may be brought before the Judicial Council to six months following the decision by the state medical society.

Contract Practice — The Principles of Medical Ethics were amended by the House of Delegates to include contracts with "political subdivisions" in addition to contracts with corporations, organizations, or individuals. The House also amended the contract practice section of the Principles of Medical Ethics to include those contracts which were based upon a fee schedule, salary, fixed rate, or on a per capita basis.

Investigation of Unethical Practices—The Judicial Council was granted special permission by the House of Delegates to create a special investigating committee to be appointed by the president of the American Medical Association to investigate unethical practices which, in the judgment of the Judicial Council, were of national significance and beyond the scope of the constituent state medical societies. The president of the American Medical Association could then appoint a special investigator to secure information for the committee to investigate the charges. The investigator appointed by the president would then appear before the Judicial Council of the American Medical Association to prosecute the charges placed against a member of the American Medical Association for alleged violations of the Principles of Medical Ethics.

Birth Control and Contraceptives—The special committee appointed by the House of Delegates to consider the subject of birth control and contraceptives reported to the House of Delegates and, following the report, the House adopted a resolution which provided that (1) the American Medical Association make clear to the medical profession the status of the physicians under existing legislation, and that the status of the physicians be made known to them through the Journal of the American Medical Association; (2) the question of the efficacy of contraceptives was referred to the Council on Physical Therapy and the Council on Pharmacy and Chemistry; (3) the question of further study of fer-

tility and sterility was referred to the Council on Medical Education and Hospitals; (4) that contraceptive information was to be given only in licensed dispensaries (in addition to the physician's office); (5) the Committee on Birth Control and Contraceptive Devices was recommended for continuance by the House of Delegates.

Resettlement Administration—The Committee on Legislation and Public Relations recommended to the House of Delegates that the secretaries of constituent state medical societies inform the secretaries and officers of county medical societies of the efforts being made by the Rural Resettlement Administration to provide medical care for their clients. The local county medical societies were urged to cooperate with the agencies of the Rural Resettlement Administration to provide care for the clients of the Rural Resettlement Administration in a manner satisfactory both to the doctor and the Rural Resettlement Administration.

Council on Industrial Health—A special council was created in the American Medical Association to be known as "The Council on Industrial Health." This Council is to consider health problems arising within industry.

Interns in Fifty-Bed Hospitals — The House of Delegates authorized the Council on Medical Education and Hospitals to approve, in special instances, fifty-bed hospitals for intern training.

Examinations for Blind Aids—The House recommended that under title X of the Social Security Act providing aid to the blind, that recipients of the blind aid be examined by a "regularly licensed medical doctor" skilled in the treatment of the eye. The House also recommended that a supervising ophthalmologist be appointed for each of the states which secured benefits under title X of the Social Security Act.

Automobile Accidents—The special committee of the House of Delegates to consider highway accidents made the following recommendations to the House of Delegates:

(1) The adoption of uniform driver's license laws.
(2) That tests be established to determine drunkenness.
(3) That the American Red Cross be commended on the establishment of first-aid stations on state and national highways.

Election of Officers

On Thursday afternoon the House of Delegates elected the following officers to the American Medical Association:

President-elect—Dr. Irvin Abell, Louisville, Kentucky.

Vice president—Dr. Junius B. Harris, Sacramento, California.

Secretary—Dr. Olin West, Chicago.

Treasurer—Dr. Herman L. Kretschmer, Chicago.

Speaker of the House—Dr. Nathan B. Van Etten, New York.

Vice Speaker — Dr. H. H. Shoulders, Nashville, Tennessee.

Board of Trustees — Dr. Arthur W. Booth, Elmira, New York, to succeed himself; Dr. R. L. Sensenich, South Bend, Indiana.

Council on Scientific Assembly—J. Gurney Taylor, Milwaukee, Wisconsin.

Judicial Council — Dr. J. W. Burns, Cuero, Texas.

Council on Medical Education and Hospitals—Dr. Charles Gordon Heyd, New York.

The House of Delegates received an invitation from the California Medical Association, the San Francisco County Medical Society, and the mayor of San Francisco to hold the 1938 annual meeting of the American Medical Association in San Francisco. The House of Delegates voted unanimously to accept this invitation.

The "Daily Bulletin" disclosed that the State Medical Society of Wisconsin was represented by the following physicians:

June 8

Adamkiewicz, J. J., Milwaukee.
Arveson, R. G., Frederic.
Baumgartner, M. Meredith, Janesville.
Beeson, H. B., Racine.
Belting, George W., Orfordville.
Buerki, R. C., Madison.
Crosley, G. E., Milton.
Carey, Eben J., Milwaukee.
Enzer, Norbert, Milwaukee.
Fellman, George H., Milwaukee.
Fisk, Charlotte, Madison.
Gavin, S. E., Fond du Lac.
Gundersen, Gunnar, La Crosse.
Hall, R. M., Milwaukee.
Heise, Herman A., Milwaukee.
Houck, Mary Piper, La Crosse.
Hyde, W. G., Milwaukee.
Jackson, Arnold S., Madison.
Jerome, Jerome T., Madison.
Johnson, Arthur W., Milwaukee.
Jones, Walter J., La Crosse.
Larson, George B., Madison.
Lee, Howard James, Oshkosh.
McMahon, J. P., Milwaukee.
Martin, Hilmar G., Milwaukee.
Mowry, William A., Madison.
Reese, H. H., Madison.
Schmidt, Erwin R., Madison.
Schutte, Albert G., Milwaukee.
Seeger, Stanley J., Milwaukee.
Sevringhaus, Elmer L., Madison.
Sisk, J. Newton, Madison.
Sleyster, Rock, Wauwatosa.

Smith, Joseph F., Wausau.
Smith, L. D., Milwaukee.
Sullivan, Eugene S., Madison.
Taylor, J. Gurney, Milwaukee.
Waters, Ralph M., Madison.
Wenstrand, D. E. W., Milwaukee.
Wiprud, Theodore, Milwaukee.

June 9

Armbruster, John L., Milwaukee.
Boeckman, Frank, Marshfield.
Brussock, Walter A., Milwaukee.
Clark, W. T., Janesville.
Connell, F. Gregory, Oshkosh.
Farnsworth, Frank B., Janesville.
Farnsworth, Richard W., Janesville.
Fitzgerald, Robert E., Milwaukee.
Foerster, Harry R., Milwaukee.
Gulbrandsen, Lars F., Viroqua.
Hardgrove, M., Milwaukee.
Hermann, A. H., West Allis.
Irvine, Robert K., Manawa.
Kasak, Michael, Wauwatosa.
Kurtz, Chester M., Madison.
Long, Chester W., Milwaukee.
McCormick, Stuart A., Madison.
McDonald, Robt. E., Milwaukee.
O'Hora, Clarence M., Beaver Dam.
Peterman, M. G., Milwaukee.
Purcell, H. E., Madison.
Reifenrath, I. B., Milwaukee.
Smith, Eugene A., Milwaukee.
Squier, Theodore L., Milwaukee.
Wiesender, A. J., Berlin.

June 10

Bear, N. E., Monroe.
Beebe. Geo. W., Eau Claire.
Cowan, Irving I., Milwaukee.
Davies, Gwilym, Waukesha.
Ebert, R. O., Oshkosh.
Farrell, H. J., Milwaukee.
Grove, William E., Milwaukee.
Jamieson, R. D., Racine.
Kassowitz, Karl E., Milwaukee.
Lotz, Oscar, Milwaukee.
Malnekoff, B. J., Milwaukee.
Wieder, Lester M., Milwaukee.

June 11

Haessler, Herbert, Milwaukee.
Jones, John W., Milwaukee.
Mitchell, E. J., Brodhead.
Pease, Willard A., Rio.

Address of the President, Dr. Charles Gordon Heyd

Dr. Charles Gordon Heyd, of New York, president of the American Medical Association, addressed the House of Delegates when they convened on Monday morning, June 7.

"We must find an answer to certain impending medico-social changes," declared Doctor Heyd in opening his remarks to the House of Delegates. Doctor Heyd stated that the danger to the medical profession lies in the extension of existing institutions. There is danger of hospitals and medical care eventually becoming politically controlled if the state and the federal governments go into the financing of hospitals. As evidence of this danger of politically-controlled medicine, Doctor Heyd pointed to the increased use of out-patient departments which, if they continue to grow, will eventually consume medical practice.

Doctor Heyd suggested that we "reappraise our position on certain medical questions." The questions placed before the House of Delegates by Doctor Heyd were essentially concerned with the care of the "medically indigent." In reappraising our position on the care of the medically indigent patient, Doctor Heyd outlined several questions that should be considered and asked the members of the House, "Are we prepared to accept the following propositions?"

(a) That the medically indigent persons are entitled to free medical care.
(b) That the care of the indigent is a local problem.
(c) The care of the indigent in the home or in the office should be on a capitation service basis or on a fee schedule arrangement.
(d) The certification of the medically indigent should be consummated by established standards.
(e) A medical census in the locality should be made and identification of those medically indigent should be established.
(f) A limitation should be placed on the number who can attend one clinic or out-patient department.
(g) A fair remuneration to physicians on out-patient service.
(h) Opposition to all forms of compulsory sickness insurance.
(i) In "medically backward" areas is it advisable to set up laboratories of a purely diagnostic character for the exclusive use of physicians.
(j) A further study of the problem of rural medical service.
(k) A more thorough and complete study of the question of the so-called "catastrophic illnesses."

Address of the President-Elect, Dr. J. H. J. Upham

Doctor Upham stated that the medical profession must take cognizance of the "parasitic pseudo-scientific healing cults" that have come into existence. Doctor Upham placed the following rhetorical question before the House of Delegates—"Has literacy kept pace with present-day knowledge when the public continues to use these cults?"

Doctor Upham stated that the medical profession should continue to be opposed to experimentation that would decrease the quality of medical service rendered to the public.

The two major activities before the medical profession would be (1) provision for the continued education of physicians after their graduation from accredited medical schools; (2) continued and extended education of the public.

To accomplish the first of these two activities, President-elect Upham suggested that the Council on Medical Education and Hospitals investigate the feasibility and advisability of a traveling postgraduate course or courses in the several states.

To accomplish the second objective, President-elect Upham suggested that the education of the public be continued by an extension of the activities of the Bureau of Health and Public Instruction and an increase in their personnel. He suggested further that a special meeting be called of the representatives of the state societies so that some state effort may be made to coordinate the work now being done and that projected by the Bureau of Health and Public Instruction of the American Medical Association.

Report of Doctor Sleyster, Chairman of the Board of Trustees

Doctor Rock Sleyster, in discussing the report of the Board of Trustees to the American Medical Association, urged a better support of the special journals* published by the American Medical Association to obviate the present deficit of publishing the special journals.

The Board of Trustees of the American Medical Association recommended to the House of Delegates that a special council be organized on "industrial health" to control industrial diseases and the services provided in industrial plants.

Recommendations of Doctor Follansbee, Chairman of Judicial Council

Dr. George E. Follansbee, chairman of the Judicial Council, cautioned members of the House of Delegates concerning "rules of conduct" evolved by county medical societies to cope with situations which arise in their district. He cautioned against "rules of conduct" which were based on problems presently before the county medical society and designed to cope with that immediate situation. Doctor Follansbee stated that no rules of conduct which had been adopted had caused any particular embarrassment to the Judicial Council of the American Medical Association.

Doctor Follansbee pointed out the fact that in depriving a physician of his membership in the American Medical Association by "rules of conduct," that care should be made not to establish two sets of rules of ethics. Caution should be exercised in the adoption of "rules of conduct" for the county medical society that such rules are "in sound relation to the principles of medical ethics of the American Medical Association."

Doctor Follansbee recommended to the House of Delegates that the Constitution and By-Laws of the American Medical Association should be amended so that a limitation could be placed upon the time in which appeals to the Judicial Council of the American Medical Association could be heard. Doctor Follansbee, as chairman of the Judicial Council, recommended that a six-month limit should be placed on the period in which appeals could be heard by the Council.

Wisconsin Physicians in Scientific Exhibits

Four scientific exhibits at the meeting of the American Medical Association were presented by Wisconsin physicians. Drs. James A. Jackson and Jerome T. Jerome, of Madison, had a display on the subject of bone surgery; Dr. Eben J. Carey's (Milwaukee) exhibit was devoted to wave mechanics of the nervous impulse; Dr. L. D. Smith of Milwaukee, presented an exhibit of the apparatus used by him in the reduction and fixation of fractures of the shaft of the femur; Drs. Arnold Jackson and J. Newton Sisk, of Madison, exhibited material on diseases of the gastro-intestinal tract.

* *Archives of Dermatology and Syphilology. Archives of Neurology and Psychiatry. American Journal of Diseases of Children. Archives of Internal Medicine. Archives of Ophthalmology. Archives of Otolaryngology.*

Assembly Floor Discussion on Bill 850, A, Legalizing Voluntary Sickness Insurance Schemes

As reported in the special legislative bulletin, on June 10, 1937, Bill 850, A which would legalize voluntary sickness insurance was killed by a vote of 63 to 27.

The floor discussion on this bill is given in full here for the information of members.

Mr. Speaker: "We will take up bill 850, A as a special order of business."

The Clerk: "No. 850, A, a bill to amend subsection (3) of section 148.01, and to create section 146.23, subsection (4) of section 148.01, sections 185.50 and 201.85 of the statutes, relating to the formation of cooperative and other associations, to provide medical or hospital care, discrimination against, exemption from insurance laws, and providing a penalty."

Mr. Speaker: "The question is: Shall amendment No. 1, A be adopted. The gentleman from Fond du Lac."

Assemblyman Fitzsimons. "I move the rejection of the amendment and ask a roll call."

Mr. Speaker: "The gentleman from Fond du Lac moves the rejection of the amendment, and asks for a roll call. Are there sufficient seconds? There are

sufficient seconds, and the roll call is ordered. The gentleman from Milwaukee."

Assemblyman Biemiller: "The amendment is purely a clarifying amendment; it does not affect the content of the bill in any way, shape or form. I trust the amendment may be adopted."

Mr. Speaker: "The question is: Shall amendment No. 1, A be rejected"

(Roll call taken)

Mr. Speaker: "The amendment is rejected. The question now is: Shall amendment No. 2, A be adopted"

Assemblyman Fitzsimons: "Mr. Speaker, I move the rejection on that, and I ask a roll call."

Mr. Speaker: "The gentleman from Fond du Lac moves the rejection of the amendment, and asks for a roll call. Are there sufficient seconds? There are sufficient seconds, and a roll call is ordered. The question is: Shall amendment No. 2, A be rejected. All those in favor of that action vote Aye, those opposed No. The clerk will prepare the roll. Have all members voted? The clerk will close the roll. (Roll call taken) Ayes, 53; Noes, 29. The amendment is rejected.

"The question now is: Shall the bill be ordered engrossed."

Assemblyman Fitzsimons: "I move the indefinite postponement of the bill, and ask a roll call be taken."

Mr. Speaker: "Are there sufficient seconds?"

Assemblyman Mueller: "May I ask for the committee report?"

Mr. Speaker: "The clerk will read the committee report."

(Committee report on bill 850, A read by the clerk)

Mr. Speaker: "The gentleman from Milwaukee (second)."

Mr. Biemiller

Milwaukee, Author of the Bill

Assemblyman Biemiller: "Mr. Speaker and members of the assembly: It appears that the law as laid down in the Milwaukee Journal in its usual charming disregard for veracity has had a salutary effect upon certain members of this assembly,—salutary, that is, from the standpoint of the *Milwaukee Journal.* The Journal has pursued its usual task—it usually does in any far-reaching measure of this nature—of taking pains to write what purports to be a news story, but what is an editorial, and spreading it on the front page, after consulting only one side of the question. I believe it is customary in newspaper ethics that when newspapers are trying to get a story on what they consider is a very important and controversial matter that the newspaper reporters generally confer with both sides of said matter. Now, I think it is only right to say for the record, to point out, that the Journal at no time has ever consulted with the proponents of the legislation before us. They have done a delightful job of putting on a smoke screen, confusing issues, and making people believe all sorts of different things are going to happen if certain bills before this legislature are going to pass."

A Brand New Idea

"Referring to the bill 850, relating to the formation of cooperative and other associations to provide medical or hospital care, a vicious approach has been used. The approach that has been used is that here is something entirely new, a brand new idea that somebody got and is trying to put over on the legislature. Now, such is hardly the case.

"Contract practice, voluntary health insurance, and medical cooperatives now exist legally in the state of Wisconsin. They have existed for many years, and will continue to exist. In the United States at the present time there are upwards of three million people who are covered by some form or type of medical practice with which bill 850, A concerns itself. There are in the state of Wisconsin at least fifteen plants today, some of them very large plants, which have this type of medical practice in operation. There are cooperatives that have been formed in the northern part of this State, and there is a voluntary insurance scheme not connected with any plant in Milwaukee."

To Remove Certain Impedimenta

"Now, what this bill is trying to do is to remove certain impedimenta that have been placed in the way of contract practice of medicine in the state of Wisconsin. It has been brought into the assembly at the request, as you noticed from the hearings, of the Farmers' Union, of the Wisconsin State Federation of Labor, and of the cooperative organizations of this State. I think it is rather interesting and possibly good food for thought to remember the list of appearances that were read in the committee report of the hearing that was had. You notice the farmers and the workers and the cooperatives were unanimously in favor of this bill. You have all received letters from these various organizations, telling you they are in favor of the bill; and the only opposition that appeared was organized medicine. A little later I will have more to say about organized medicine. I just want to draw that one contrast in starting off these remarks about the bill. On the one side you have lined up three million people in the state of Wisconsin, representative of the principal organizations of working people and farmers in this State; on the other hand you have the medical profession lined up through one representative who appears for them. I think that is something to think about, when you begin to concern yourself with this bill.

"Now, there has been during the past five or six years considerable attention called to the question of the cost of medical care. So serious is that problem that a committee studied this problem for four years and spent well over a million dollars in that

study,—the Committee on the Costs of Medical Care; and they came out with some very startling figures and statistics upon the situation that prevails today in the United States. They showed that, speaking roughly, the upper 15 per cent of our population gets adequate care; the lowest 20 per cent from an economic standpoint gets reasonably good care, but the 65 per cent in between do not,—and that statement has been proved by one study after another."

Doctors . . . Concerned

"The doctors themselves are finally beginning to get quite concerned about the question of adequacy of medical care, as shown by action that has been taken just in the last day or two at the meeting of the American Medical Association at Atlantic City. The problem is there and it has to be met, and one of the ways of meeting it is through voluntary health insurance plans and medical cooperatives.

"Now, let me emphasize,—this bill is in no way compulsory, it is an enabling act. It carries just one step further practice that already exists in the state of Wisconsin and in every other state in the Union. There is nothing new or novel about it, for voluntary health insurance and medical cooperatives are favored by many diverse elements. The Committee on the Costs of Medical Care in its majority report came out in favor of voluntary health insurance as one of the best means of meeting the problem of costs of medical care. That Committee was headed by Dr. Ray Lyman Wilbur, the former president of the American Medical Association and Secretary of the Interior under President Hoover,—scarcely a person who could be called a radical; you can't pin a bolshevik label on Dr. Wilbur very well.

"Secondly, the Pope in his last two encyclicals has called for both voluntary and compulsory health insurance, stating it was one of the great needs of the day for every worker.

"Third, there are hundreds of doctors throughout the country who are in favor of it. I am thinking, for instance, of the study that was made by the American Foundation, in conjunction and in cooperation with some 2,100 doctors in this country. There were three doctors from the state of Wisconsin."

The Duke of Windsor

Assemblyman Engebretson: "Will the gentleman from Milwaukee yield to a question?"

Mr. Speaker: "Will the gentleman yield?"

Assemblyman Biemiller: "Yes."

Assemblyman Engebretson: "Has the Duke of Windsor been consulted on this matter?"

Assemblyman Biemiller: "Yes, I am glad you asked that question. It so happens that the Duke of Windsor, during his short time as King of England, was very proud of the English program of health insurance.

"They were advisory members of the Committee, —Dr. Carter of Green Bay, Dr. Jones of Wausau, and Dr. Reginald Jackson of Madison. And that study had the following to say about voluntary health insurance plans,—they said: 'We have little objection to voluntary insurance, except on the ground that people will not take it out, a view that is subject to revision in face of the fact that a great many persons do seem to be covered by it now in the form of group policies,'—referring to these three million people that I spoke of in opening this address. There is again, for instance,—favoring this line of practice, giving it sponsorship—the Bureau of Cooperative Medicine, headed by Dr. James P. Warbasse, one of the best-known surgeons in the United States, whose book is even advertised on the front page of the Journal of the American Medical Association; and if you know the check the American Medical Association makes on advertising, you know absolutely that puts the stamp of approval on that book. Many diverse kinds of people, many doctors are in favor of this type of medical practice."

Resettlement Administration

"The government of the United States has given its approval to medical cooperatives. The Resettlement Administration is sponsoring medical cooperatives throughout the entire United States, and I note a clipping from Brule, Wisconsin. Dr. R. C. Williams, officer of the United States Public Health Service, now serving the Resettlement Administration, speaking at a meeting stated that the Resettlement Administration will make loans of $40 to those who qualify and desire such loans, to those who will become members and pay their first year's dues in a health cooperative,—urging all to take advantage of the health cooperative as a means of raising the health in this region.

"Now, the only opposition that has been raised to this bill comes, as I said, from organized medicine,—from the State Medical Society and its affiliated organization, the Hospital Association, the doctors and nurses and so on, over which the Medical Society has considerable control.

"I want to take up some of the objections that have been raised in letters sent you, every member of the assembly, by these various groups, because I think they are actually without foundation. They have been making a great to-do over the fact that such plans as come under the terms of this bill do not come under the Insurance Division. Now, there I think somebody is trying to fool the legislature when they say that is a terrible thing and a new idea. They say such plans do not come under the Insurance Commission. An opinion rendered by Attorney General Finnegan last year specifically exempted such plans from the provisions of the insurance laws, and I have here a statement from the present attorney general also. He believes the opinion of Attorney General Finnegan is sound and will stand up. The insurance laws do not apply to health insurance and voluntary health insurance plans, and that provision of the bill is simply in there for the purpose of making sure that those pro-

visions are on the statute books as law and don't simply have to remain as opinions of the attorney general.

"Now, this particular form of practice,—might I suggest to the lawyers of this group, the payment system of this particular system of medical practice is essentially the same thing every lawyer does in the state of Wisconsin when you take a retainer. You take certain payment in advance, and then you agree to do legal work that that firm may bring to you. Now, this prepayment plan of medical care is exactly the same thing. The payments are made in advance on terms agreed to by the subscribers to the plan, and all complete medical care as defined in the terms of the agreement are made. I think that has to be considered, when such a vicious attack is made on the very idea of prepayment for medical care. Lawyers have been doing it from time immemorial, and will continue to do it; and the prepayment plan in medicine differs from the fee system only in the method and amount that is paid, and in no way affects the scientific aspects of the practice of medicine, any more than the retainer fee has any other effect on the practice of law—sometimes they have other effects, I know, but not on the practice of law."

Schemes

"The question of the insurance laws governing the schemes in this State was never raised by anyone until the Milwaukee Medical Center came into existence a couple of years ago. Then the Medical Society raised the question, and Attorney General Finnegan made his ruling at that time and that was the reason the ruling had to be made.

"Now, as to the question of contract practice, many types of contract practice do exist in this State. I could mention some of the important firms like Cutler–Hammer, who have such plans in operation and are somewhat concerned about the grip of the Medical Society on contract practice. There are hundreds of doctors in Wisconsin engaged in a contract practice, but somehow or other the Medical Society has only seen fit so far to go after the Milwaukee Medical Center. I raise the question: Why has that been done, that this particular voluntary health insurance bill should be attacked? Why is it every other type of contract practice isn't attacked, if this particular plan isn't of any benefit to the state of Wisconsin, as an agent of the Medical Society has said? Why don't they go after Cutler–Hammer, A. O. Smith,—why don't they go after Walter Kohler? These plants have established the same type of setup as has the Milwaukee Medical Center. I think those things ought to be taken into consideration when that point is raised."

Arrogant Power

"The next argument that is raised is upon the particular part of this bill that affects hospitals. I want to state now categorically there is no effort being made by that section of the bill to let anyone except duly licensed physicians and their patients use the hospitals, and there is no attempt being made to interfere with hospital rules regarding the admission of patients or of doctors, save in one respect and one respect only, that this bill—and I want to submit to this assembly the type of case that has arisen that makes it necessary to put that type of law into the laws of the state of Wisconsin. As I stated, you can't knock out contract practice under the insurance laws, as stated once and for all by the attorney general; but what the Medical Society does do, and will continue to do more in the future, it exercises their arrogant power over the hospitals and demands that the hospitals do not admit doctors or patients who are members of contract practice schemes. Now, that has happened in Milwaukee, and co-ops in Superior have been told it is going to happen there: that their patients will not be permitted in the hospitals unless this bill passes. Now, the point is raised: They will open up the hospitals to quacks and so on. Nonsense! I will tell you what has happened. A certain doctor in Milwaukee who was a member of the staff of one of the most important hospitals in Milwaukee,—that doctor was praised to the skies, the other staff members held him up as one of the finest physicians and surgeons in the city, and he was rated by everyone as a top man in his profession; and when two years ago he joined the staff of doctors at the Milwaukee Medical Center, he was immediately thrown out of the hospital and told he couldn't practice there. Attorneys went to the hospital and asked: Why? They said: It is because we are told we can't have contract doctors in this hospital. An effort was made to carry that fight up to the Order of Sisters in charge of that hospital, and they said: No, we can't; organized medicine won't let us. Now, gentlemen, that is the control organized medicine has,—you may wonder what it is. Organized medicine will deny interns to hospitals—there is the rub—if they accept doctors under contract practice that the Medical Society may not like. Obviously, hospitals can't run without interns; and unless protection is given, you are going to deny to thousands of thousands of people in this State who want to be under a voluntary health insurance plan the right to go to a hospital, unless this particular part of this bill is made law in the state of Wisconsin. If you want to take on your shoulders the responsibility of keeping thousands of people from the hospitals, all right, go ahead and have your fun,—as the gentleman from Fond du Lac thinks he is doing. But sometime if a member of the profession dies because he couldn't get into a hospital, then think about it and see how you like your fun."

Important Political Issue

"You are dealing with human lives here today, as the Medical Society insists; and you are dealing with the most important political issue that will be up in this country in the next five years. A recommendation is about to come out in Washing-

ton for a nation-wide scheme. You can laugh all you want to, gentlemen; but if you want to take that kind of responsibility on your hands, go ahead,—it is yours. Of course, it may be the other fellow's funeral, and not yours.

"Now, other kinds of objections have been raised also. The objection has been raised to that part of the bill that says the State Medical Society must accept doctors who are under contract schemes, the State Medical Society can't bar a doctor on the sole ground that he belongs to a contract medical scheme. That has been done in the state of Wisconsin. The doctors in the Milwaukee Medical Center in Milwaukee are admitted by everybody in the profession to be among the finest physicians in that city. One is chief of staff in the hospital, another is x-ray man in the hospital,—and the best x-ray man in that area by consent of all. In other words, they have served in opening the Milwaukee Health Center as a means of bringing to poor people and people of modest means a way of meeting their medical costs. But because they do that, the Medical Society says: Gentlemen, you are out; we don't want you as members of our Society."

Of More Importance Than the State

"Now, I suppose that what is happening there, if somebody wanted to take it into court, is that the State Medical Society is setting itself up as being of more importance than the state of Wisconsin. The state of Wisconsin licenses physicians, and the State has the right to withdraw licenses from physicians at any time it sees fit,—and that sometimes happens, as we know. Any physician licensed to practice by the State is under law, and a person who has the ability and so on to go ahead and carry on his practice, the State says whether he is a good doctor or not; but the Medical Society comes along and says: 'Oh no, we don't want you, you want to do something for the people.' The State Medical Society says: 'We believe we want the practice of medicine carried on, so far as its economic aspects are concerned, in exactly the same way it was in the Middle Ages.'"

Most Backward Profession

"Did it ever occur to you, gentlemen, that of all the professions, of all the businesses in the world, in its economic aspects—not the scientific aspects but the economic aspects of its profession, that it is the most backward profession there is in the world; that the fee system is exactly the same way that medical practice was carried on in the Middle Ages? There hasn't been one change made, they have lagged behind.

"Now, actually, voluntary health insurance or the sort of insurance that some of you have through your lodges where you have a lodge doctor, or you are protecting yourselves among each other, or that you have in the railroad,—that kind of practice is nothing but a manifestation in fact of medical economics, or what has been going on in our industrial world in the last four centuries. They are beginning to catch up, recognize the social conditions of a very intricate, organized society,—a society that has to meet its problems in groups and not as individuals. Now, the cry is of course raised—"

Assemblyman Tehan: "I don't want to interrupt, but I wonder if I might ask him a question."

Mr. Speaker: Does the gentleman yield?"

Assemblyman Biemiller: "I would rather answer the question later. The cry is raised among the Medical Society that if this sort of legislation is passed, it is going to lead to all kinds of litigation, —the doctors who have been barred from hospitals are going to say: Now, I have got a contract scheme and I want to come in. A doctor is barred for other reasons,—if he is an abortionist, or a dope addict, or what have you, he can still be barred whether he is in a contract scheme or not. Oh, the Medical Society says: Think of the litigation, think of the lawsuits! Now, I ask the gentlemen of this Society, if the physician is a dishonest physician, if he has been an abortionist, do you think he is going to go into court and have that spread on the record? You know very well he isn't. You know the only people who can take advantage of this particular clause, if it becomes law, are in the few cases like the one I told you about, where it can be proved without a shadow of doubt,—because he was barred from the hospital staff because he believed in a way of helping poor people in the costs of medical care. No abortionist would take a chance of being prosecuted by the government. I think every honest person knows that is a smoke screen. It is the old, old trick that has been used by conservatives since time immemorial to becloud the real issue, and try to bring out extraneous issues that have nothing to do with the actual case in point.

"Now, to sum up briefly on this situation, I think that you see in general why this bill is necessary,—not starting anything new, not a bit of it. It is simply asking for the rest that sort of practice that exists up in Price County, where a Dr. Reinhardt has for several years carried on this kind of practice and been praised, without any fear of the Medical Society; and I think the gentlemen can testify to the fine srevice rendered."

Substandard Service

"But the cry goes up: Oh, this is going to be substandard medicine, if you have contract practice! Now, gentlemen, I submit this to you. The best example in the whole country of the sort of thing we are trying to do is the famous Ross–Loos Clinic in Los Angeles. It has been in existence less than a decade. It now has over 60,000 subscribers, it has forty doctors who work on regular schedules. They have vacations, they have years when they go and study in a medical school and paid by the Clinic. That Clinic renders service to its patients at a cost that is lower than it would get under the fee system. We figured out that as compared to a cost of $4.50 for each patient under the fee system, the cost is

$2.68 under this Clinic system. But the doctors are better paid, they are sure of their income, they have better working conditions. So famous has that Clinic become that its fame has spread up and down the Pacific Coast, and similar clinics have been organized in all the extreme western states. The city of San Francisco by a referendum election this spring voted to set up a similar scheme for its city employees, so fine do they find that work of the Ross–Loos Clinic. While citizens may see by the facts that a doctor may be a reputable doctor and he may have been praised by his fellow doctors, he may have even been suggested for president of a county medical society because he was so fine a physician; but the moment he starts to engage in a contract practice, somehow he becomes a substandard doctor. I can't quite see that that is logical, I can't understand it; I can't see why it is going to change the skill of the physician, whether he gets paid on a prepayment plan or whether he gets paid on a fee system and hopes he may get it some day. I can't see it. I think it is an insult to the medical profession for anyone to say the method of payment is going to change the devotion which all physicians give to their work. I would regard that as an insult, I would resent it; and if I were a member of a medical society that said I would be guilty of substandard work if I went into contract practice, I would resent it.

"I ask you to investigate the plans in operation, see if they are substandard. On the other hand, if you did investigate them this is what you would find: you will find a setup like the Ross–Loos Clinic which may have in it specialists of every nature and description, or the Milwaukee Medical Center which has a hospital building of some hundred rooms in its setup, even an operating room and everything down,—and you would find they have an eye, ear, nose and throat man, an x-ray specialist, a bone man, and cover all the illnesses to which the human body is subject."

Hit-and-Miss System

"I think you would agree with me that such a scheme offers far better medical care than does the hit-and-miss system that most of us go under now. When most of us try to get a doctor now, what the most of us do is either go to the nearest one or ask a friend and call up a doctor, and then you go to him. That is free choice. Now, I submit, you still have free choice under a voluntary health insurance plan. You join a cooperative or subscribe to a health insurance plan; and you can leave any time you want to,—just as you can leave any doctor when you want to,—there is nothing that compels you to stay there. The element of choice is still there. Now, that is what you have got."

The Medical Trust

"You have got something here that is in operation on the railroads, in the industrial plants, in co-ops, in clinics and so on. It is in operation, it has been going strong throughout the whole country, and now is growing by leaps and by bounds. You have it backed by organized labor, you have it backed by organized farmers, and you have it backed by the co-ops. And who fights it? Just one group fights it,—the medical trust. And I use the word 'trust' advisedly.

"I have had at least fifty phone calls at my home in Milwaukee; I have had another fifty letters here on my desk, from physicians saying: 'Mr. Biemiller, we are with you one hundred per cent, you are on the right track, keep after it,—but for heaven's sake, don't use our name, or we will catch hell through the Medical Society.' I have talked to other doctors, I have talked to a doctor here in Madison only last week-end,—I met him at a party I happened to be attending; and the doctor came up and shook hands with me and sort of looked rather funny at me as if I must have horns or something. He said, 'I have been wanting to meet you for a long time, I want to tell you what is wrong with you.' And we sat down and discussed these bills. The doctor hadn't read the bills, all he knew about them was what he heard from the Medical Society; and when I had got through explaining the bills he said, 'Well, I don't see anything wrong with what you are trying to do at all, that sounds perfectly sound to me.' Now, I have had that experience. I think others of you will have them, if you sit down with the doctors and go into the situation.

"And remember this, gentlemen: we have asked for suggestions, we have asked for advice from the Medical Society,—we have said, 'If you have any suggestions, bring them in and we will be glad to take them up.' But on this bill they say, 'Oh no, we are just against it, that is all.' That is all. They don't want to offer any suggestions. And the member of the Society can't take up the challenge hurled at him by a member of the Superior Cooperative at the hearing, who said, 'Mr. Crownhart, if you can advance another plan that will take care of the 65 per cent of the people who don't get adequate medical care today, we will be only too happy to take it.' But the plan has not been forthcoming. They still want to go on in the ox-cart days, not even the horse and buggy,—they go back to the Middle Ages; the ox-cart days is the way medical economics is going on in most places in the United States."

An Obnoxious Thing

"That medical trust is an obnoxious thing. It is a handful, a very small handful of doctors who tell the rest of the doctors what they should think on a subject like this. On the whole, I realize most of the doctors are busy with their profession. I have nothing but the utmost respect for the scientific achievements and devotion doctors give to their task. I realize full well many doctors don't realize how bad the situation is on medical care in this country, for this reason: I have one doctor after

another say to me, 'If anybody comes to my office and says, "I haven't got any money but I am sick and will you take care of me?", I do.' I think that is true, I think most doctors do; I think if you are broke and you walk into a doctor's office and want some help, you will get it. But it is that very fine spirit that blinds the doctors to the real problem. What they don't realize is that there are thousands upon thousands of people who don't want charity; and who when they are sick just don't go to a doctor. Dr. Warbasse estimates that 38 per cent of the serious illnesses in the United States never have the attendance of a physician,—never. Somehow they get through. If they live, all right; if they die, that is too bad,—and that is what happens, they never have the benefit of a physician.

"But those costs can be met by spreading the costs among a group of people. Under these plans —one I will quote directly—a single person pays one dollar a month, a married couple without children pays two dollars a month, and a family regardless of size pays three dollars a month,—and for that they get complete medical care. Now, is there anything wrong with letting people do that, if they want to? I say there isn't. But I say there is something wrong when you try to bar otherwise reputable doctors and their patients from hospitals because they would rather pay for their medical costs on a budget system, on an insurance principle if you want to put it that way,—I say there is something wrong. I say the medical trust has got something to answer for, when it is trying to block the will of a great many people. It has taken upon itself the responsibility of keeping people out of hospitals when they need hospitals. And I say, if they want to take that upon their shoulders, all right. But I repeat again, it is not a dead issue, although some of the gentlemen in this assembly may think it is. It is an issue you will hear plenty about in the next few years; and you will hear it not only in the state of Wisconsin, but you will hear it through the entire United States,—and if the medical trust wants to stand in the way of the will of the people, so be it.

"But I think if the medical trust realizes what this problem is, and sits down and soberly takes account of the problem, they themselves will get together with the people who are interested in this kind of legislation and work it out; and as soon as we do that, then we will be on the way toward really giving good medical care to the people of this State."

Assemblyman Tehan: "Will the gentleman from Milwaukee yield?"

Assemblyman Biemiller: "I may want to speak again."

Assemblyman Tehan: "I am interested particularly on behalf of the people of Milwaukee in the operation of the clinic of the Milwaukee Health Center. I don't know, I was just wondering if you could give me any information. In other words, do they solicit their members?"

Assemblyman Biemiller: "The answer is absolutely no."

Assemblyman Tehan: "Do they advertise?"

Assemblyman Biemiller: "No, there is no solicitation. May I on the question of advertising add just one word? I think this body ought to know about it. When the Milwaukee Health Center was organized two years ago, the then president of the Medical Society issued a blast against it in the newspaper, prepared a release date on it to the newspapers. Later when these gentlemen were brought up for trial before the State Medical Society, Dr. Curtin's release was introduced as evidence that the Milwaukee Health Center was advertising. That is the kind of advertising charges leveled against it."

Assemblyman Tehan: "I have one or two questions. In a contract, if they do contract, is there any requirement as to the state of health?"

Assemblyman Biemiller: "That depends as to what the size of the group is which comes in. You can come in in groups, which is the best way of working this kind of practice,—then there is no requirement whatever; if you come in as an individual, then there is."

Assemblyman Tehan: "Assuming there is a person afflicted with cancer or tuberculosis, or any disease that is incurable, is there any line drawn?"

Assemblyman Biemiller: "No, if he is in a group; as an individual, he couldn't get in that way. But if he comes in in the post-office clerks' union as a group, anybody is taken in."

Security Angle

Assemblyman Tehan: "My particular objection to this bill, members of the assembly, is from the security angle. It is conceded by the gentleman from Milwaukee (2nd) that this is not properly a matter for control and guidance of the insurance commissioner of the state of Wisconsin, which is the effect of the opinion of Attorney General Finnegan and of the present incumbent, Attorney General Loomis. I haven't probably been in practice quite as long as the gentlemen, but I disagree with you, —if not purely from a legal standpoint, at least from a practical standpoint. I believe that the proper method of approach to this system, if it is to be approached, and there is need to the extent of major catastrophes in the matter of health, that approach to my mind comes in the insurance field.

"We have in the city of Milwaukee the Medical Association, the Milwaukee Medical Bureau, composed of seven or eight doctors, I believe, who have been selected from various professions, their various lines. They encourage the membership, — I don't mean that in the way of advertising, but I think for the purpose that they want the members. They want them to pay dues on a periodic basis, and I believe their fee is $3 per month.

"Now, I raise for your consideration such a setup. You have a number of people who are today

interested. There is nothing back of it to my mind of any substance. Now, we know from our own experience without any medical experience, we have had experience with it,—there are people who are chronically ill who would, when they join, certainly take advantage to the utmost of such facilities as are offered. There are, on the other hand, perhaps those who would be appealed to and would join for the reason that they want this protection for a time of illness but at the time they join are in very good health. Now, the three dollar fee would be paid, let us assume, by 50 per cent who might be chronically ill, and the other fee must be paid for those who wanted to insure against the cost of some catastrophe that might happen to them and impair their health.

"Now then, with such a new scheme, I can't see why at least there should not be some orderly surety, some bond, some indemnity that a person who really believes in it, who conscientiously would pay for a period of time his regular fee,—some security that at some time when he does fall ill that he should have at that time the complete forces of that Medical Center behind him. But as I understand,—(Mr. Tehan's remarks at this point inaudible to reporter). I say, gentlemen, that particular feature appeals to me as sufficient reason for turning down this particular proposal.

"There is the further fact that the Medical Association has gone unanimously against this bill. I think the gentleman from Milwaukee (2nd) intended to leave you with the impression that the medical men of the state of Wisconsin, and perhaps the United States, are anything but representative of the finest type of men, professional men, that we have. I regard the organization and its ethics as being perhaps the foremost of any professional body. I think that they have been in the forefront on all matters of social interest, and they have shown a true spirit of public concern for public charity; and it is really a matter of considerable dismay if not discussion that some of the others who appeared before the committee had arguments that appealed merely to faction and prejudice of the mercenary spirit supposedly of some doctors who had to have cash on the line. I say that is an unfair indictment of the medical profession, for they are in a very, very small minority."

They Have Moved Forward

"The medical profession has, I believe,—and rightly so—moved in a cautious manner at all times; but they have moved, and they have moved forward. They have adopted from their very training, from their fundamentals,—the very pride of the profession is the scientific approach, by which they cannot say that this is a remedy, this is a cure, this is the best procedure, until the exclusion of any possibility of error is almost wiped out. They have taken that approach, and I feel that the medical profession itself and their opposition to this bill at this time must be given a great deal of consideration; that the opposition of the hospitals of the State and of the nurses of the State should be given the utmost consideration,—because, after all, they are in the field, they are the people who know the situation. And for that purpose,—not because I disagree with the objectives of the gentleman, but because I believe that his bill will not be the panacea that has been claimed for it, I move it be indefinitely postponed."

Assemblyman Berquist: "In regard to what Mr. Biemiller has said, I want to read a letter I received from a doctor in northern Wisconsin. This is a doctor I met in the campaign last fall, and he was a good Landon Republican.

"I want to point out, in Wisconsin we have one doctor for every 2,000 people, in the northern part; in the southern part of the state we have one doctor for every 750 people, and I will read you this letter here."

(Letter read by Assemblyman Berquist, only fragments of which were audible to reporter.)

"He goes on to say here that 'the local Democrats that I have talked to say they are going to take it over to the State senate if it passes the assembly.'"

Assemblyman Blomquist: "This is a very important question. It is a question that if it does not come at this time it will come up some future time. Now, the gentleman from Milwaukee (2nd) mentions the cooperative societies that are now functioning in the state of Wisconsin. Now, I happen to be acquainted with some of the cooperative health societies that are functioning on the railroads.

"I just want to give you as an example the Southern Pacific Railroad. The Southern Pacific Railroad is one of the largest railroads in the United States, it operates many miles of rail lines in the western part of America. Now, this railroad company and its employees have built, I think it is the largest hospital in California in the city of San Francisco; and it is entirely endowed and operated by the railroad and its employees. And the employees of that railroad contribute 1 per cent of their wages monthly to the upkeep of that hospital, and for that contribution they receive for themselves and their families complete medical care. And if any one of you have any doubt as to the efficiency and the scientific part the Southern Pacific Hospital plays in California, I want you to see it if you ever go out there. They have a large staff of doctors who are entirely maintained and entirely employed by that hospital, and it is perhaps one of the most glaring examples of what cooperation can do. Now, in Wisconsin, the Omaha Railroad has a similar plan. However, they patronize local hospitals.

"The Northern Pacific Railroad operates its own hospital in Minneapolis under a similar plan, I think, in which health service is given to the employees. I just wanted to call that fact to your attention. It is important, it is vital, and those are things which should be taken into consideration when you are considering this bill. These are things that are being done, they are not superficial. These are

things that have been done for years, and nearly every large railroad or large corporation today has some system or another of that kind. I just want to call that to your attention, so that you may give this bill your due consideration."

Mr. Speaker: "The gentleman from Richland."

Almost Perpetrated a Fraud

Assemblyman Thomson: "Gentlemen of the assembly: I have listened with considerable interest to the very complete presentation of the gentleman from Milwaukee (2nd). He is a very well-educated young man, and he has made a detailed study of this problem. But he has almost perpetrated a fraud upon the public with this bill.

"It is always a clever practice, as the gentleman from Milwaukee (2nd) knows, when you want to have a successful argument, if your major premise is correct then you will be successful in proving that point. If you would start off with a proposition that all elephants can fly, and go to the zoo and see Bessie out there, then you would say: If all elephants can fly, Bessie should fly too. And that is what the gentleman from Milwaukee (2nd) has done on this bill, and he has the major premise in the first two paragraphs in which he wants to declare the policy of the state of Wisconsin,—I will read it to you. He begins in the bill and here is the major premise:

> 'The legislature hereby finds and declares that large numbers of people in the state of Wisconsin are unable to secure adequate medical and hospital care because of insufficient means to meet the high cost thereof and because no arrangements exist for spreading the risk of medical and hospital expense over groups of people and periods of time.'

"Now, he hasn't established anything so far, and I don't think there is any evidence in the state of Wisconsin that his major premise is correct. He goes on in the same statement:

> 'The legislature hereby finds and declares that the cost of medical and hospital care can be reduced and regularized by the organization of cooperative associations to provide, secure or pay for such care, or by the furnishing of such care by individual physicians or groups of physicians under contracts providing for the payment of a stipulated sum per month, year or other period.'

"There is a joker in this bill. It goes on further and asks you to declare the public policy of the state of Wisconsin to 'facilitate the formation of cooperative associations to provide or secure medical and hospital care and to encourage the furnishing of such care by physicians under contracts providing for the periodic payment of a stipulated sum."

Wall Street Philosophers

"Now, perhaps if that were true there would be some validity to the argument of the gentleman from Milwaukee (2nd). He has had the assistance of research foundations set up in Chicago and Wall Street on the question of socialized medicine, and he bobs up with a major premise that can be established in this State.

"Now, the gentleman from Milwaukee (2nd) talks about the medical trust. Yesterday he talked about the utility trust, the day before that it was the insurance trust, the day before that it was some other trust; and I don't know why a physician can't explain what kind of a symptom that is. The gentleman from Milwaukee (2nd) is in this instance the walking delegate for the Wall Street philosophers. We have in our midst a parrot school peddling these philosophies for political—"

Assemblyman Biemiller: "I rise to a point of order. The gentleman from Richland is not discussing the bill, he is dealing in political argument."

Mr. Speaker: "The gentleman from Richland will confine himself to the argument on the bill."

Assemblyman Thomson: "The purpose of this bill is to bring before the public in the state of Wisconsin a new issue. Now, the gentleman from Milwaukee (2nd) says that the only opposition to this bill comes from the medical trust; but it is my opinion that the opposition comes from an alarmed and indignant public.

"I want to say to you that, as Buick says to you, 'When better cars are built Buick will build them.' I want to say to you, gentlemen and the lady from Milwaukee: When better medical services are being provided, the medical profession of the state of Wisconsin will provide them for you.

"I furthermore want to say that if such plants as A. O. Smith, Kohler and other institutions of that kind, want to set up some kind of a responsible and effective hospitalization plan or medical plan for their employees, they have some assurance that they are going to get value received. I don't think the public in Wisconsin wants to take their medical and hospitalization service in the Piggly-Wiggly way."

Insult to the Progress

"Look at the record in Wisconsin. I think this bill is almost an insult to the progress and the people that have made the progress in medical science and health measures in this State. Wisconsin is now setting an example of what the medical profession and their affiliates have done for the people in Wisconsin.

"They give me the following figures: In 1910 in the state of Wisconsin the average age expectancy was 40 years, and in 1935 it is 60 years; scarlet fever, out of 100,000 population, decreased from 13.2 per cent to 3.5 per cent; out of the same number in 1910, typhoid fever, 558 deaths, and in 1935 only 8 deaths; whooping cough, 8.6 per cent dropped to 1.7 per cent; diphtheria, 429 deaths in 1910, 10 deaths in 1935; infantile paralysis, 478 deaths in 1910; 87 deaths in 1935. And one of the best examples is infant mortality: in 1910, 120 deaths per

thousand live births, and in 1935, 46 deaths per thousand live births.

"I want to submit those figures are indisputable of the fact that the medical profession has reached down to the very smallest home in the communities throughout the state of Wisconsin. You can't match that kind of an advance. At least, the people are getting the service that they need and they deserve."

A New Edition Every Morning

"Now, the investigations made by the Julius Rosenwald Foundation and propaganda that has been spread in my mail box,—I get a new edition every morning. You talk about the medical trust: There must be somebody else that is interested in putting this program across, because this book cost 10 cents, and I must have a dollar's worth of them on my desk already.

"The report that was returned by the Governor's Citizens' Committee, the committee states and I will quote,—and the Governor said himself that was the most exhaustive and complete report that was ever made in any state in the Union. 'The committee is impressed with this outstanding health accomplishment. We have reason to be proud of achievements in both the field of prevention and alleviation of disease. Our program is not that of instituting a new system, but an effort by correlation to carry forward the present work to still greater heights of progress. The committee is conscious that errors in judgment at this point might well defeat its purpose and bring about retrogression.' And that same committee studied the voluntary sickness insurance, and rejected the proposals unanimously.

"I want to say further that Harry Hopkins paid a high tribute to the medical profession in the Nation, and that is particularly applicable to the situation in the state of Wisconsin, when he said the medical profession is in the vanguard.

"I submit to you gentlemen that the real issue that the gentleman from Milwaukee (2nd) was talking about is to bring before the public some kind of a proposal where an educational director or a propaganda director can carry forward and have some issue to talk to the people about, when all their other proposals have been discarded and discredited.

"I submit to you that if you want to continue these advances, don't follow the preachings of some Wall Street foundation. Go down here to your Board of Health and look at the figures of the progress in the state of Wisconsin. I commend to you the progress of the medical profession in Wisconsin, and say to you: put your trust where it belongs, and continue this advance."

Assemblyman Fitzsimons: "We have had too much talk, and therefore I move the previous question."

Mr. Speaker: "The gentleman from Fond du Lac moves the previous question. Are there a sufficient number of seconds? The chair will have to put the question. All those in favor of the previous question, vote Aye; those opposed, No. The clerk will prepare the roll. Have all voted? The clerk will close the roll. Ayes, 39; Noes, 37. The previous question is ordered. The clerk will announce the pairs."

(Pairs announced by clerk)

Mr. Speaker: "The question is: Shall bill 850 be indefinitely postponed? All those in favor of that action, vote Aye; those opposed, No. The clerk will prepare the roll. Have all members voted? The clerk will close the roll. Ayes, 60; Noes, 24. The bill is indefinitely postponed.

"For what purpose does the gentleman rise?"

Assemblyman Catlin: "I ask a vote for reconsideration be taken up at this time.

Mr. Speaker: "The gentleman from Outagamie asks a vote for reconsideration be taken up at this time. That involves a suspension of the rules and a two-thirds vote. The question is: Shall the rules be suspended and the matter of reconsideration be taken up at this time? All those in favor of suspending the rules, vote Aye; those opposed, vote No. The clerk will prepare the roll. Have all members voted? The clerk will close the roll. Ayes, 57; Noes, 26. So the rules are suspended. The question is: Shall the vote by which bill 850, A was indefinitely postponed be reconsidered?"

Assemblyman Catlin: "I ask a roll call."

Mr. Speaker: "There are sufficient seconds, a roll call is ordered."

Assemblyman Biemiller: "Does the previous question apply on this?"

Mr. Speaker: "The previous question applies all the way back to the main question. The gentleman from Manitowoc."

Assemblyman Sigman: "I raise a point of order that a new question involved the previous question does not apply.

Mr. Speaker: "The chair is going to ask advice of the gentleman from Milwaukee (20th)."

(Discussion as to procedure)

Mr. Speaker: "The chair will hold the previous question does not apply. The question is: Shall the vote by which bill 850, A was indefinitely postponed be reconsidered? All those in favor vote Aye; those opposed, No. The clerk will prepare the roll. Have all members voted? The clerk will close the roll. Ayes, 43; Noes, 42. So the previous question is ordered.

(Upon several motions to adjourn, put and voted upon, the assembly refused to adjourn.)

Mr. Speaker: "The question is: Shall the vote by which this bill was to be indefinitely postponed be reconsidered? The clerk will prepare the roll. Have all members voted? The clerk will close the roll. Ayes, 29; Noes, 55. The assembly refuses to reconsider.

(Upon motion duly made and voted upon, the assembly thereupon recessed until 4:30 p. m.)

Assembly Kills Compulsory Sickness Insurance Bill, 63-27

THE ministrations of the family doctor, close to his people, were preferred by the Wisconsin Assembly to a theoretical and systematized plan of medical practice affecting substantially half of the population of the State.

This was the decision of the assembly on Thursday, June 17, when by a vote of sixty-three to twenty-seven it killed bill 852, A, described in detail in the June issue of the Wisconsin Medical Journal (page 472 ff.). Voting to kill the measure were Progressives, Republicans, and Democrats.

As soon as this measure was announced as a special order of business at 10:30, Assemblyman R. E. Tehan, Milwaukee, promptly obtained the floor to open the attack, securing recognition before the author had an opportunity to make his presentation. Assemblyman Tehan called attention to the fact that the State Medical Society of Wisconsin had furnished each member of the assembly with a complete copy of the assembly committee hearing on this measure, including both the statements of the proponents and opponents of the bill. He then reviewed the position of those opposed to the bill declaring that "it sets up a gigantic and the most expensive, elaborate bureau of state government ever conceived."

"The director of this bureau," declared Mr. Tehan, "would not only have the power to appoint but also the power to remove the complete administrative staff and any physician, dentist, nurse, pharmacist, or any other person furnishing services, including hospitals. Under the terms of this measure you are allowing a third person to come between the physician and the patient. It has long been one of our liberties, one of our prerogatives that we shall have the power and the privilege of choosing whomsoever we want, to know that the relation we have with our physician is confidential, but under this bill there would be a bureau, not only one person, a lay person, but a group of laymen. This bill is designed perhaps to standardize needs, but in the essence it standardizes the service that it gives the patient.

"In cases in which a specialist is needed, under the strict terms of this bill, although the gentleman from Milwaukee second (district) will say I am interpreting the bill too finely, it is the power of the director, subdirector, or sub-subdirector to say just when this specialist shall be called."

In concluding his floor presentation, Mr. Tehan moved that the bill be indefinitely postponed (killed).

"Are you opposed to this bill or to the general principle of compulsory health insurance?" was the query of Assemblyman Biemiller.

"I have been concerned mostly in the field that you are most interested in, the field of catastrophic medicine," replied Mr. Tehan, "and I have the belief that those should be taken care of by insurance, the cash to be paid directly to a person who is the beneficiary thereof, and that he have the full privilege to make whatever choice he wants."

Repeating in substance his committee presentation, Mr. Biemiller's address was prefaced by the statement that the labor movement in this country had for many years been working to establish some sort of social control "which will give laborers security against the four great hazards to which workers are subjected. Those four hazards are old age, unemployment, accidents, and sickness. Now we have been partially successful in accomplishing some kind of security against the first three of those hazards. * * * Now we are here then to discuss a bill which will take care of this fourth great hazard, somehow provide security for the worker against sickness, and sickness is in many ways the worst of all those four hazards."

He further said that the bill was introduced "by the request of the Wisconsin Federation of Labor and has its approval. I think it is worth while to point out that there are only three countries of any consequence or importance that do not have compulsory health insurance laws, and those three countries are India, China, and the United States of America. That is a nice

Ephedrine Products Lilly

● Topical application of Ephedrine to mucous membranes represents but a single example of the therapeutic value of this drug.

Indications for Ephedrine include asthma, rhinitis, sinusitis, and the manifestations of allergy, such as hay fever and urticaria. Ephedrine in moderate doses is stimulating to the heart and circulatory system. Important advantages of Ephedrine are its relatively prolonged action and effectiveness by oral as well as parenteral administration.

Among the prescription forms of Ephedrine which are available are Ephedrine Inhalants, Lilly, Pulvules (filled capsules), Ampoules, and Hypodermic Tablets.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

trio that we find ourselves in,—India, China, and the United States. The coolies of China, the downcast of India, and American workers are not protected against sickness. * * * This bill appears not only because of the fact that the State Federation of Labor wants it but also because in the Progressive platform of 1936 there is a demand for sickness insurance."

In concluding his argument, Mr. Biemiller asserted that all health advance, which was admittedly notable in Wisconsin, had come through the efforts of public health officials and not through the medical profession.

The Family Physician

The floor presentation against the bill was continued by Assemblyman James T. Cavanaugh, of Antigo, who pointed to the high service rendered the people of the State by the family physicians.

"I speak on this subject out of my personal experience," declared Mr. Cavanaugh, "our family for years has had such a family physician. The people of Wisconsin do not need this bill. It is a proposal based only on theory. As far as the people are concerned, as I know them, I know that the old way is better because of the fact that they are well taken care of medically by those who know them and who cherish the family relationship. There is no one who needs medical protection. If we have this system it will provide nothing but a further burden on the taxpayers of this State."

Assemblyman Mark S. Catlin, Appleton, declared that the measure violated two great and fundamental principles of medicine. "A third party is introduced into the relation of doctor and patient, and the service to be rendered will depend wholly upon the adequacy of the budget, which in this instance is grossly inadequate."

Striking back at Assemblyman Biemiller who had declared that American physicians did postgraduate work abroad and who had cited that as proof that medical service was high under compulsory sickness insurance, Mr. Catlin stated that "one could have excellent educational facilities abroad and at the same time have a low quality of medical service for the care of the people. This," he asserted, "is exactly what is occurring."

"There is a great difference between this bill," said Mr. Catlin, "and other measures for the protection of labor which the Federation of Labor has advocated. In other measures, such as unemployment insurance, old age assistance, and the Workmen's Compensation Act the return is direct to the working man. In this case there is a third party and instead of having the doctor and the patient we have the doctor, the government, and the patient. This is a principle that will utterly destroy the service."

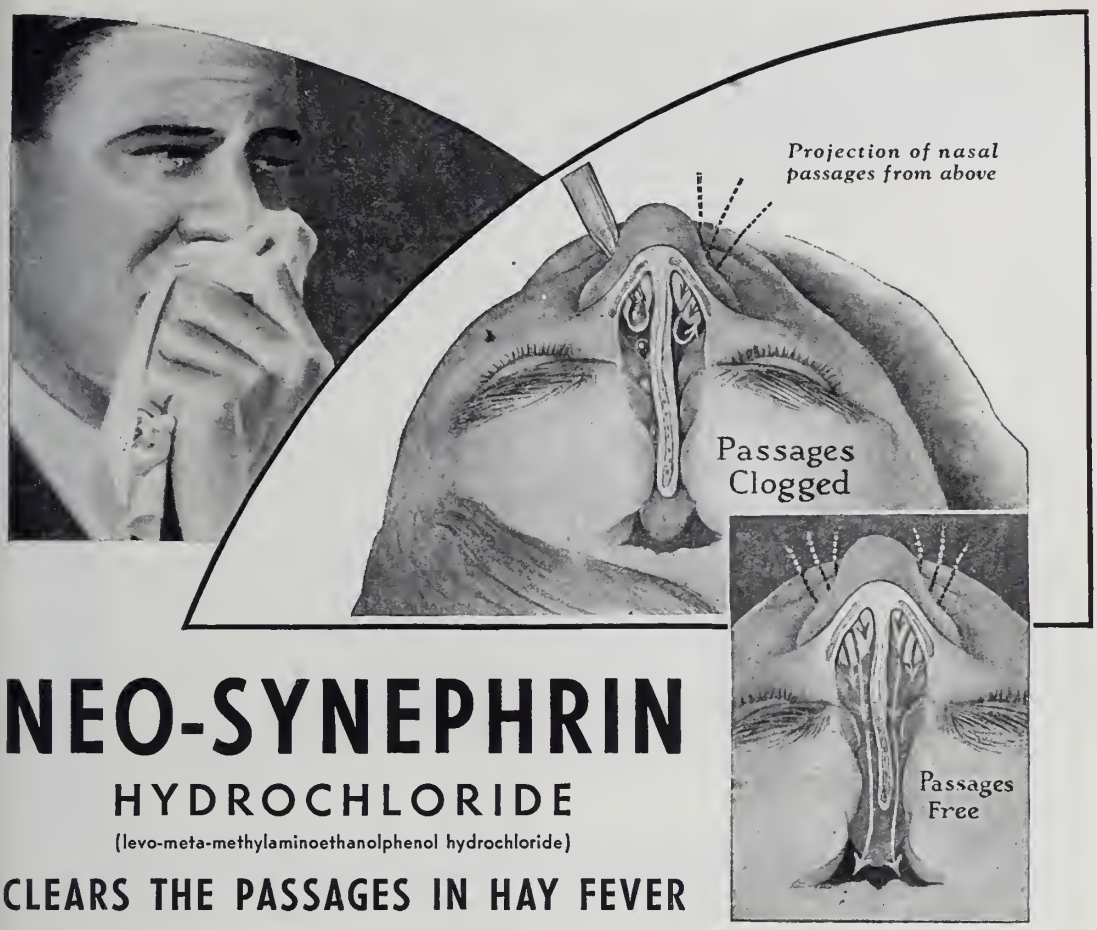
A protest that the large exempt group of the State would not only fail to derive benefits but in the end would ultimately bear the burden of the cost of the system was voiced by Assemblyman Alfred R. Ludvigsen, of Hartland, Waukesha County.

"According to the author of the bill," said Mr. Ludvigsen, "a half to two thirds of the people of the State are not entitled to the privileges it sets up for the laboring class. The farmers, domestic workers, government employees, and others, none of whom earn more than those entitled to the privileges of the measure, are wholly excluded from the benefits, yet half the cost of the measure comes from a pay-roll tax. We know that this tax will in turn be added to the costs of production and in turn this will be paid by the farm population and others who derive no benefits under the measure."

When the bill was reached in the assembly the first vote was on the amendment by Assemblyman Grobschmidt, Milwaukee, to exempt Christian Scientists. This amendment was adopted by a vote of fifty-two to thirty-five.

Assemblyman Vernon Thomson, Richland Center, and Maurice Fitzsimons, Fond du Lac, were co-authors of an amendment to exempt from the terms of the act any who filed affidavits that they did not believe in socialized medicine.

"This amendment was introduced for no other purpose than to kill the bill," said Sigman. "If you are opposed to this bill then vote to kill it, but don't use this subterfuge



NEO-SYNEPHRIN

HYDROCHLORIDE

(levo-meta-methylaminoethanolphenol hydrochloride)

CLEARS THE PASSAGES IN HAY FEVER

The discomforting engorgement of allergic rhinitis may be effectively relieved by application of the synthetic vasoconstrictor Neo-Synephrin.

Neo-Synephrin may be used repeatedly without loss of effectiveness.

All three forms are valuable in hay fever:

NEO-SYNEPHRIN HYDROCHLORIDE EMULSION
¼% (1-oz. bottle with dropper)

NEO-SYNEPHRIN HYDROCHLORIDE SOLUTION
¼% for dropper or spray } (1-oz. bottle)
1% for resistant cases }

NEO-SYNEPHRIN HYDROCHLORIDE JELLY
½% (in collapsible tubes with applicator)

ADVANTAGES

- Active on repeated application
- More sustained than epinephrine
- Less toxic in therapeutic doses than epinephrine or ephedrine
- Relatively Stable
- No sting

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

FREDERICK STEARNS & COMPANY

DETROIT NEW YORK KANSAS CITY SAN FRANCISCO
WINDSOR, CANADA SYDNEY, AUSTRALIA

to make the people think you're doing something for them."

"I wish you'd put on a new record," was the answer by Assemblyman Thomson. Every time an amendment is introduced the gentleman from Manitowoc (Sigman) gets up and makes just such statements for the benefit of the Capital Times or anyone else who cares to listen to it."

Thomson declared that the sentiment of the majority of the people of Wisconsin is opposed to socialized medicine and that there should be provision in the bill to protect "conscientious objectors" against regimentation. He added that any other legislation of a socialized nature that the "bearers of the banners of Brisbane Hall" (Socialist headquarters in Milwaukee) should introduce will meet the same fate as Biemiller's medical bill.

The Journal Bookshelf

BOOKS RECEIVED FOR REVIEW

The Larynx and Its Diseases. By Chevalier Jackson, M.D., professor of bronchoscopy and esophagoscopy, Temple University, Philadelphia; and Chevalier L. Jackson, M.D., professor of clinical bronchoscopy and esophagoscopy, Temple University, Philadelphia. Price $8. Philadelphia: W. B. Saunders Company, 1937.

Clinical Reviews of the Pittsburgh Diagnostic Clinic. Edited by H. M. Margolis, M.D., Price $5.50. New York: Paul B. Hoeber, Inc.

The International Medical Annual. Edited by H. L. Tidy, M.D., and A. R. Short, M.D. Price $6. Baltimore: William Wood and Company.

The Mentally Ill in America. A history of their care and treatment from colonial times. By Albert Deutsch. With an introduction by William A. White, M.D., late superintendent, St. Elizabeth's Hospital, Washington, D. C., professor of psychiatry, George Washington University. Price $3. New York: Doubleday, Doran & Company, Inc., 1937.

Infantile Paralysis and Cerebral Diplegia. Methods used for the restoration of function. By Elizabeth Kenny, Australia. With foreward by H. J. Wilkinson, professor of anatomy and dean of the faculty of medicine, University of Queensland, Queensland, Australia. Australia: Angus & Robertson Limited, 89 Castlereagh Street, Sydney.

Short-Wave Diathermy. By Tibor de Cholnoky, associate in surgery, New York Postgraduate Medical School, Columbia University. Price $4. New York: Columbia University Press, 1937.

Personal Hygiene. By C. E. Turner, professor of biology and public health, Massachusetts Institute of Technology. Price $2.25. St. Louis: The C. V. Mosby Company, 1937.

The Normal Encephalogram. By L. M. Davidoff, M.D., assistant professor of neurology, College of Physicians and Surgeons, Columbia University; and C. G. Dyke, M.D., assistant professor of radiology, College of Physicians and Surgeons, Columbia University. Philadelphia: Lea & Febiger, 1937.

The Technic of Local Anesthesia. By A. E. Hertzler, M.D., professor of surgery, University of Kansas. Sixth edition. Price $5. St. Louis: The C. V. Mosby Company, 1937.

Physical Diagnosis. The art and technique of history taking and physical examination of the patient in health and in disease. By D. C. Sutton, M.D., associate professor of medicine, Northwestern University School of Medicine. Price $5. St. Louis: The C. V. Mosby Company, 1937.

The Basis of Clinical Neurology. By Samuel Brock, M.D., associate professor of neurology, College of Medicine, New York University. Price $4.75. Baltimore: William Wood & Company, 1937.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

A Handbook of Ambulant Proctology. By Charles E. Blanchard, M. D., editor of the Bulletin of Office Practice. Youngstown, Ohio: Medical Success Press, 1937.

This so-called "Handbook" is reviewed only to be condemned with the hope of discouraging the publication of writings of such inferior quality. The author states that his aim is to supply a handbook for office use in proctologic practice. Much space is devoted to ideas entirely irrelevant to medicine as a whole, let alone proctology. The author is admittedly unorthodox by his frequent references to the failure of the medical profession generally to subscribe to his ideas. The text is not recommended. K. L. P.

pp. 553-4 missing

NEUROSYPHILIS

A spinal fluid examination sometime during the first six months treatment of early syphilis is considered an essential diagnostic measure for the detection of asymptomatic neurosyphilis. Syphilitic involvement of the central nervous system, diagnosed at this early state of development, will respond in the majority of cases to arsenical therapy combined with one of the heavy metals.

For the treatment of patients who do not respond to this therapy, and for neurosyphilis diagnosed in the later stages, the therapeutic measures of established value are: artificial fever therapy, especially with induced malaria, and

TRYPARSAMIDE MERCK

Clinical reports and treatment suggestions on Tryparsamide Merck in neurosyphilis are available on request.

MERCK & CO. Inc. *Manufacturing Chemists* **RAHWAY, N. J.**

When writing advertisers please mention the Journal.

Holland, Wright, and Von Lint is described by them personally, and, in addition, the method of Knapp and Homer Smith, and the technique of the author are given.

The book covers 150 pages, with ten chapters, the final comprising a very practical discussion by Nugent concerning the fitting of correcting lenses after cataract extraction.

Surgeons, both young and experienced, will find this little volume most valuable. F. A. D.

Pediatric Dietetics. By N. Thomas Saxl, M. D., associate and lecturer in diseases of children, New York Postgraduate Medical School, Columbia University, assistant attending physician, babies' ward, New York Postgraduate Hospital. Price $7. Philadelphia: Lea and Febiger, 1937.

In this well-planned book of less than 600 pages, the author has presented a very practical discussion of the newer knowledge of nutrition as it applies to the infant and child. The volume is divided into three parts and includes a useful appendix. In Part 1 the author considers the physiology of digestion, the composition of various foods and the subject of metabolism. Part 2 is devoted to the discussion of breast and artificial feeding in the infant. In Part 3 the diseases peculiar to infancy and childhood are considered in alphabetical order. The prominent symptoms and signs, and the abnormal physiology of the various diseases are briefly stated. Dietaries based on sound, scientific physiological and nutritional knowledge are recommended and special subjects, such as dentistry, diabetes, epilepsy and diseases of the genito-urinary tract, are discussed by specialists in the various fields. The appendix contains physiologic data, weight tables, and classified food tables. The latter lists the carbohydrate, protein, fat, mineral, vitamin, fluid contents and the caloric value of all the common food stuffs. A very complete bibliography adds much to the value of the text.

This book is most practical and should prove to be a valuable addition to the library of any physician whose practice is devoted to children. K. B. McD.

Surgical Pathology of the Thyroid Gland. By A. E. Hertzler, M. D., surgeon to the Agnes Hertzler Memorial Hospital, Halstead, Kansas, professor of surgery, University of Kansas. Philadelphia: J. B. Lippincott Company, 1937.

This volume is an attempt on the part of the author to correlate the clinical picture with the pathological findings in diseases of the thyroid gland.

This begins with the broad statement that it is impossible to classify goiters because the changes vary from month to month and the diagnosis and classification would have to vary accordingly. Then follows the classification of the American Society for the Study of Goiter, of which he remarks as follows: "The first three of these (Nontoxic Diffuse, Nontoxic Nodular, Toxic Nodular) represent a degenerative stage. As evidence of toxicity develops we must recognize that it is a toxicity of degeneration in which the entire gland is taking part. The cardiotoxic really should form the fourth member of the group because it is the natural sequence of the other three stages. The diffuse toxic, synonymous with Graves' disease, on the other hand, represents a wholly different pathological process. It is characterized by hyperplasia and the toxicity is due to this evident excess of gland activity."

However, many dogmatic statements which are apt to be misleading are found, such as follows: "We now know that myxedema results only when total thyroidectomies are done on adolescents" and ". . . the fact that goiter, whatever the type in the beginning, is a continuous process ending in a cardiotoxic state." The proof of the validity of these statements is questionable and should be presented as such rather than as facts.

The many pictures very completely illustrate the various points under discussion and add materially to the presentation. To those interested in this subject it presents a detailed discussion of the views and experiences of the author. K. E. L.

ENCEPHALITIS WITH POLYNEURITIS

(Continued from page 551)

On February 21, he was advised to collect a 24-hour specimen of urine. Examination by a chemist failed to show lead. Because lead and manganese are somewhat similar in chemistry, it was felt that manganese might be producing the encephalitis. Another 24-hour specimen was examined and the report showed 0.12 grams of manganese in two quarts of urine. This finding confirmed the suspicion that the encephalitis was due to chemical poisoning, i.e., manganese dioxide.

After this diagnosis it was evident that this was an industrial case, and the patient was ineligible for further service at the Dane County Clinic. He was, therefore, referred back to the doctor under whose care he had been previously, with the suggestion that forced spinal fluid drainage be given him in sufficient amount to procure 50 to 100 cc. of spinal fluid for the purpose of chemical examination. This suggestion was carried out and manganese was found.

I wish to point out that the diagnosis in this case was made possible by the splendid cooperation given by the Toxicology Department of the University of Wisconsin under the direction of Dr. F. L. Kozelka.

The earliest description of manganese poisoning was given by Couper, in 1839. In 1901, von Jaksch described three cases of diffuse brain and spinal cord disease resembling multiple sclerosis and occurring in manganese millworkers. The first American report was presented by Casamajor, in 1922. In 1929, Edsall and Drinker reviewed all the reported cases. The latter authors summar-

ize, as follows, the syndrome of manganese poisoning in workers in contact with manganese dust for at least three months, giving the manifestations in the order of their appearance: Languor and sleepiness; stolid, mask-like face; low, monotonous voice. Muscular twitching, varying in degree from a fine tremor of the hands to gross rhythmical movements of the arms, legs, trunk and head are apparent. The patient complains of cramps in the calves and stiffness in the muscles of the legs, the cramps usually coming on at night and being worse after a day of exertion. There is a slight increase in tendon reflexes, ankle and patellar clonus. It is frequently possible to elicit rhythmical contractions by stretching any of the muscles of the body. Romberg's sign is inconstant; there is no incoordination. Retropulsion and propulsion are present, and a peculiar slapping gait is noticed. Occasionally the patient gives way to uncontrollable laughter, less frequently crying. Uniformly absent are disturbances of sensation, visual defects, reaction of degeneration in the muscles and spinal fluid alterations. Not infrequently there is excessive salivation, mental dullness, and intention tremors have been observed. Patients usually relate the typical story of walking or climbing on the metatarsophalangeal joints and being compelled to run down hill faster and faster to keep from falling forward.

Mella has published the record of experimental poisoning with manganese which he produced in four monkeys. The animals developed choreic or choreo-athetoid movements which passed into a state of rigidity accompanied by fine tremors, and typical paralysis agitans contractures of the hands. Striking pathological changes were found in the lenticular nuclei and liver. The similarity between symptomatology of manganese poisoning and the extrapyramidal syndrome called parkinsonism is striking. The latter is progressive, however, whereas in this form of poisoning the patient remains stationary or improves when exposure to manganese dust has ceased.

Nothing has proved of real value in the treatment of symptoms, but hyoscine and phenobarbital might be tried as in the chronic forms of encephalitis.

Every detail of your single vision or bifocal prescription carefully interpreted.

Highest quality—Accuracy—Correct Styling

N. P. Benson Optical Co., Inc.

"Established 1913"

MAIN OFFICE: MINNEAPOLIS, MINN.

—Branches—

ABERDEEN
BISMARCK
DULUTH
EAU CLAIRE
LA CROSSE
WAUSAU
RAPID CITY
STEVENS POINT
ALBERT LEA

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE—The complete set of eye, ear, nose, and throat instruments of the late Dr. G. I. Hogue. A diathermy and surgical unit costing $372.50, price now $75. A transformer $100, now $40. A Keystone telebinocular $20. New Cameron set $225, now $100. Will also sacrifice many eye, ear, nose, and throat instruments for $75. Address replies to Mrs. G. I. Hogue, 1030 North Marshall Street, Milwaukee.

FOR SALE—30 M. A. oil condenser type x-ray with fluoroscope, screen, and darkroom equipment at $125, and large oil condenser type diathermy at $65. Delivered anywhere in Wisconsin. Other office equipment also in good condition. Address replies to No. 65 in care of Journal.

FOR SALE—Home and office with separate entrance. Partly furnished if desired. Office furniture steel enameled. Northeastern Wisconsin. Twin city population about 30,000. Splendid schools and churches. Hospital facilities available to an able and well-trained man. Terms to suit given on good security. Fifty years in practice. Must retire on account of failing heart. Address T. J. Redelings, M. D., Marinette, Wisconsin.

FOR SALE—New examining table and complete office equipment. Very reasonable prices. Address Box G, Cumberland, Wisconsin.

FOR SALE—Writing desk, specialist's chair, optical trial case, instrument cabinet, and other pieces of equipment in Milwaukee. Call Marquette 3155.

FOR SALE — Two Caulk-Kackley prostatic punches; new, latest models, sizes 27 and 30. One has never been used and the other has been used but once. Address replies to Sparta Clinic, Sparta, Wisconsin.

FOR SALE—Practice in southern Wisconsin village. New home and office combined. Near hospital. Transferable appointments. Good dairy section. Owner leaving for postgraduate work. Address replies to No. 68 in care of Journal.

FOR SALE—Complete x-ray equipment, list price approximately $5,000; will sacrifice for $950. Electrotherapy equipment, list price $4,000; will sacrifice for $500. Also tables, desks, chairs, and so forth, or will sell any item separately. George E. Peterson estate, P. O. Box 62, Waukesha, Wisconsin.

FOR SALE—One portable 3-10 G. E. x-ray, completely overhauled last year. Price $125. Address replies to No. 74 in care of Journal.

FOR SALE—Practice, office equipment, and drugs in town of 1,000 in southwestern part of Wisconsin. Three hospitals with open staffs within radius of fourteen miles; good roads; and good schools. Transferable appointments. Address replies to No. 81 in care of Journal.

FOR SALE—Elliott treatment regulator used about ten hours. Guaranteed in good condition or money refunded. First check for $125 takes it. Wappler galvanic and wave generator, slightly used, in good condition, cost $500; will take $100. One white enamel Castle sterilzer on stand; sterilizing unit in excellent condition; about six years old; $40. One Burdick infra-red lamp, medium size, fine condition, $25. Address replies to Dr. William Fletcher, Salem, Wisconsin.

FOR SALE—One oak examining table in first-class condition. One Vit-A-Net blanket. Will sell very reasonable. Address replies to Dr. Estelle S. Chase, 323 Grove Street, Fort Atkinson, Wisconsin.

FOR SALE—Unopposed practice, office equipment, and drugs in town of 600, eighty miles north of Madison. Good roads, open all year, rich community. Open hospitals twelve and thirty-six miles. Expenses from first week. Price $300, one half down. Address replies to No. 77 in care of Journal.

ASSISTANTSHIP WANTED—A woman physician with Wisconsin license, having five years' experience in general practice, wishes to become assistant to well-established physician. Is planning to take postgraduate work in summer; would be available in late summer. References given. Especially interested in obstetrics and pediatrics. Full details may be obtained by writing to No. 70 in care of Journal.

ASSISTANTSHIP WANTED—Young, experienced physician desires position as assistant to general practitioner with possibility of partnership or later buying practice. Address replies to No. 84 in care of Journal.

WANTED—General practitioner to associate with and share an attractive downtown office suite with an established eye, ear, nose, and throat specialist in Milwaukee. Would prefer one who desired to work into this specialty in the future. Address replies to No. 72 in care of Journal.

WANTED — Man for locum tenens work, two months' period. Must be licensed in Wisconsin. Address replies to No. 67 in care of Journal.

WANTED—Young physician with Wisconsin license as an assistant in general practice. City of 1,700. Small hospital in connection. Start at $200 and must have own car. Address replies to No. 79 in care of Journal.

WANTED—Physician for one-year residency in 120-bed hospital approved by A. C. S. Position open July 1. Salary attractive. Address No. 83 in care of Journal.

WANTED—Good location, partnership or assistantship, by physician recently from Germany. Licensed in Wisconsin and Illinois. For seven years surgical, obstetrical, and medical resident in Germany. Married. Will take locum tenens work for longer period (one year). Will not compete. Address replies to No. 80 in care of Journal.

WANTED—Position as assistant in physician's office; city or rural community. X-ray and laboratory technician; six years' experience with urologist; general office routine, bookkeeping, and so forth. Address replies to No. 76 in care of Journal.

PHYSICIANS' EXCHANGE

(Continued)

WANTED—Secretarial position in physician's office or hospital. Twelve years of experience as surgical stenographer and medical secretary. Thoroughly familiar with general office routine, filing, and the preparation of medical papers. Some experience in bookkeeping. References and details of experience and education furnished on request. Address replies to No. 82 in care of Journal.

WANTED—Colorimeter—Duboscq or some other make. Address replies to No. 64 in care of Journal.

LOCUM TENENS —Young physician with twelve years' experience in general practice including surgery would like locum tenens work for two to four weeks. Address replies to No. 78 in care of Journal.

LOCATION—Splendid opportunity for Wisconsin registered eye, ear, nose, and throat man. Position open immediately in Milwaukee. Address Dr. V. A. Chapman, 324 East Wisconsin Avenue, Milwaukee, Wisconsin.

Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

PROFESSIONAL PROTECTION

SINCE 1899
SPECIALIZED
SERVICE

A DOCTOR SAYS:—

"I have a nephew who is finishing his course in June, and you may rest assured that he is getting plenty of instruction regarding the merits of a policy with your company."

THE
MEDICAL PROTECTIVE COMPANY
OF FORT WAYNE, INDIANA
WHEATON, ILLINOIS

SUPPLIES

Needed Nutrition

...EASY TO DIGEST

	1 Dunce of Cocomalt adds	1 Glass of Milk (8 Liquid Dzs.) contains	Result! 1 Glass of Cocomalt and milk contains
†IRON	0.005 GRAM	*TRACE	0.005 GRAM
†VITAMIN D	81 U.S.P. UNITS	*SMALL AMOUNT; VARIABLE	81 U.S.P. UNITS
†CALCIUM	0.15 GRAM	0.24 GRAM	0.39 GRAM
†PHOSPHORUS	0.16 "	0.17 "	0.33 "
PROTEIN	4.00 GRAMS	7.92 GRAMS	11.92 GRAMS
FAT	1.25 "	8.53 "	9.78 "
CARBOHYDRATES	21.50 "	10.97 "	32.47 "

*Normally Iron and Vitamin D are present in Milk in only very small and variable amounts.

†Cocomalt, the protective food drink, is fortified with these amounts of Calcium, Phosphorus, Iron and Vitamin D.

DOCTORS often say that, during convalescence, one of the greatest problems is nutrition. In such cases many physicians have found Cocomalt helpful. It is a particularly good source of food-energy and young and old alike find it easy to digest.

An ounce-serving of Cocomalt increases the food-energy of a cup or glass of milk 70 per cent...this quantity of Cocomalt adding 4.00 grams of Protein, 21.50 grams of Carbohydrates, .15 gram of Calcium and .16 gram of Phosphorus to the milk. More important, each serving of this protective food drink contains 81 U.S.P. Units of Vitamin D, which aids the system to utilize the calcium and phosphorus. The Vitamin D is derived from natural oils and biologically tested for potency.

In addition, each serving of Cocomalt provides 5 milligrams of effective Iron that has been biologically tested for assimilation...enough Iron to supply ⅓ of the daily nutritional requirements of the normal patient.

Cocomalt is very inexpensive and is available at grocery and drug stores in ½-lb. and 1-lb. purity-sealed cans. Also, for professional use, in the economical 5-lb. hospital size.

Cocomalt is the registered trade-mark of R. B. Davis Co., Hoboken, N. J.

FREE TO PHYSICIANS

R. B. DAVIS CO., Hoboken, N. J., Dept. ZZ-7
Please send me a free trial size can of Cocomalt.

*Doctor*_____

*Street and Number*_____

*City*_____ *State*_____

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

MADISON HEADQUARTERS

State Medical Society of Wisconsin
Annual Meeting, Sept. 8, 9, 10, 11, 1936.

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

NORMANDALE

for

Neuropsychiatric Cases

An institution for the treatment of functional and organic disturbances of the central nervous system, including psychoses.
For further information address:
Dr. I. B. Shulak, Supt.
NORMANDALE
Madison, Wisconsin

WHEN IN MADISON

Visit Your State Offices

Room 305, Washington Building

one block from the Capitol

Copyright 1937, Liggett & Myers Tobacco Co.

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S

770 North Water St. **Phone Daly 1461**
MILWAUKEE, WIS.

Kenilworth Sanitarium

KENILWORTH, ILLINOIS
(Northern Suburb of Chicago)
Founded by Sanger Brown, M. D., 1905

Built and equipped for treatment of mental and nervous diseases. Over ten acres of well parked and landscaped grounds. Supervised occupational and recreational activities.

JAMES M. ROBBINS, M.D., Medical Director
E. J. KELLEHER, M.D.
CHRISTY BROWN, Business Manager
PETER BASSOE, M.D., Consulting Physician

All correspondence should he addressed to Kenilworth Sanitarium, Kenilworth, Ill.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

Send for application for membership in these purely professional Associations

Since 1912

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter

Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen and silk. Washable as underwear. Booklet shows three different "types" and many variations of each.

Picture Shows "Type N"

For Ptosis, Hernia, Pregnancy, Obesity, Relaxed Sacroiliac Articulations, High and Low Operations, etc.

Each Belt Made to Order. ***Ask for literature***

Katherine L. Storm, M. D.

Originator, Owner and Maker

1701 Diamond Street Philadelphia, Pa.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements

The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course

The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission

A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction

The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities

Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

STEPHEN E. GAVIN, Fond du Lac, President
JAMES C. SARGENT, Milwaukee, President-Elect
A. E. RECTOR, Appleton, Speaker
HENRY J. GRAMLING, Milwaukee, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
A. W. Rogers_____Oconomowoc

Second District:
Frank W. Pope_____Racine

TERM EXPIRES 1937

Third District:
Joseph Dean _____Madison

Fourth District:
W. Cunningham ____Platteville

TERM EXPIRES 1937

Fifth District:
A. H. Heidner_____West Bend

Sixth District:
S. E. Gavin_____Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi_____Galesville

Eighth District:
G. R. Duer_____Marinette

Ninth District:
Joseph F. Smith_____Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler_____Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson_____Iron River

Twelfth District:
Joseph Lettenberger_Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert_____Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Killins, Green Bay.
Calumet	A. J. Wagner, Brillion	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purcell, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire-Dunn-Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	C. G. Richards, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, New Glarus	E. D. McConnell, Darlington.
Langlade	Paul Dailey, Elcho	W. P. Curran, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	H. H. Christensen, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Williams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Oneida-Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Anderson, Plum City	A. E. McMahon, Glenwood City.
Polk	W. C. Andrews, Frederic	Earl C. Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempealeau-Jackson-Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	W. W. Coon, Walworth	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	J. B. Vedder, Marshfield	W. G. Sexton, Marshfield.

A NON-IRRITATING, NON-STAINING ANTISEPTIC

THE ANTISEPTIC SOLUTION to be applied to a delicate membrane should preferably be non-irritating; yet it should be effective.

Neo-Silvol solutions are bland; they may be used in the eye without injuring or irritating the conjunctiva. But Neo-Silvol is an effective antiseptic agent, useful in affections of the eye, nose, throat, and genito-urinary tract.

Neo-Silvol solutions can be made easily and promptly in your office, or by your patient if desired. The six-grain capsules permit accurate preparation of the strength required.

Neo-Silvol (Colloidal Silver Iodide Compound) is supplied in six-grain capsules, packages of 50 and 500, and in 1-ounce and 1/4-pound bottles.

PARKE, DAVIS & COMPANY • *Detroit, Michigan*

THE WORLD'S LARGEST MAKERS OF PHARMACEUTICAL AND BIOLOGICAL PRODUCTS

When writing advertisers please mention the Journal

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Reeducational Methods Applied.

Building Fireproof

Isolated, Fireproof Psychopathic Department for Acute Mental Cases

Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
JAMES C. HASSALL, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin
PETER HASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office:
Tuesday Mornings by Appointment

1330 Wells Building
Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1–3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
Rock Sleyster, M.D., Medical Director.
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

Ninety-Sixth
Anniversary Meeting
Milwaukee
September 14-17

The Wisconsin Medical Journal

IN THIS ISSUE

PYURIA IN CHILDREN
By M. F. Campbell, M. D.
TUMORS AFFECTING SPINAL CORD
By J. D. Camp, M. D.
TREATMENT OF VARICOSE VEINS
By F. L. Smith, M. D.
ANNUAL MEETING PROGRAM
REPORTS OF COMMITTEES
INTERIM COMMITTEE STUDY

COLLEGE OF PHYSICIANS
LIBRARY
SEP 25 1937
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 600

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

(XVI, Number 8
hington Avenue

MADISON, WISCONSIN, AUGUST, 1937

Per Year $3.5
Single Copy 50 Cent

Copyright, 1937, by The State Medical Society of Wisconsin

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

- A PRIVATE SANATORIUM.
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES.
- CAREFULLY SUPERVISED REST.
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Further Information Write
T. L. HARRINGTON, M. D., Medical Director,
Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

Laid up for Months

BUT THIS PATIENT'S PAYMENTS ARE NEVER OVER-DUE

● Injured in an industrial accident, this man chose his own Doctor and placed himself under his supervision. Because his compensation checks come in regularly, he can take full time for recovery. Because the Doctor's bills are paid promptly by the Insurance Company, he need lack no medical assistance.

In this sense EMPLOYERS MUTUALS is the partner of the Doctor, permitting him to give his patient the best medical attention without financial loss. And because Doctors have learned to depend upon EMPLOYERS MUTUALS for such cooperation, they turn to EMPLOYERS MUTUALS for their own Insurance Protection.

EMPLOYERS MUTUALS write Automobile, Public Liability, Fire, and other forms of insurance for individuals. They appreciate the confidence displayed by policyholders in the Medical Profession. Why don't you investigate what these strong Mutual Companies can do for you—in protection and in savings. Call any EMPLOYERS MUTUALS office!

EMPLOYERS MUTUALS

Appleton
Eau Claire
La Crosse

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.
EMPLOYERS MUTUAL INDEMNITY CORPORATION
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY
Home Office: Wausau, Wisconsin

Madison
Milwaukee
Superior

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 8

MADISON, WISCONSIN, AUGUST, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

Persistent Pyuria in Children by Meredith F. Campbell, M.D., New York ---- 611

Roentgenologic Contributions to the Localization of Tumors Affecting the Spinal Cord by John D. Camp, M.D., The Mayo Clinic, Rochester, Minnesota ---- 621

General Considerations in the Treatment of Varicose Veins by Frederick L. Smith, M.D., The Mayo Clinic, Rochester, Minnesota ---- 625

Fracture of the Carpal Scaphoid by F. H. Kuegle, M.D., Janesville ---- 631

Regional Enteritis; Report of Five Cases by Arnold S. Jackson, M.D., Madison ---- 632

EDITORIALS

"His Own Garden" ---- 636
The House of Delegates ---- 637
Official Reports ---- 637

MISCELLANY

Page

The President's Page ---- 638
The Woman's Auxiliary ---- 639
Society Proceedings ---- 640
News Items and Personals ---- 641
Birth, Marriages, Deaths ---- 642
Society Records ---- 642
Scientific Program for 96th Anniversary Meeting, Wednesday, Thursday, Friday, September 15–17 ---- 643
"Hall of Health" ---- 648
Program Synopsis ---- 649
Members—1937 House of Delegates ---- 650
Amendments to the Constitution and By-Laws 651
Scientific Exhibits ---- 652
Annual Reports of Officers and Committees to the 1937 House of Delegates ---- 654
Technical Exhibitors at the Milwaukee Meeting 669
Assembly Floor Debate on Biemiller Bill Proposing Interim Committee Study ---- 672
Books Received for Review ---- 684
Book Reviews ---- 684
Physicains' Exchange ---- 688

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]
"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physiomechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M. D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D.
L. Tennyson Peyton, M.D.

When writing advertisers please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **B. P. Grimes, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

Your Doctor
the
Guardian of Your
Health

Brings You a Message
on
DIPHTHERIA
and
SMALLPOX

Copyright 1936—State Medical Society of Wisconsin

For Your Monthly Statements

The Committee on Health and Public Instruction has written a series of pamphlets for you as a member of the Society. These pamphlets were prepared so that you might provide your patients with reliable and authentic information on common health questions.

Your Doctor
the
Guardian of Your
Health

Brings You a Message
on
HEADACHES

Copyright 1936—State Medical Society of Wisconsin

The pamphlets which are available now are:

Diphtheria and Smallpox **Headaches**
Burns **Goiter**

You may secure these pamphlets in any desired assortment at actual printing cost as shown below:

100	$ .50	400	$1.50	700	$2.65
200	1.00	500	1.90	800	3.00
300	1.25	600	2.25	900	3.30

1000—$3.50. Over 1000—35¢ per hundred.

Look no further..

If it's mildness you look for
take Chesterfields
If it's good taste you like
stop with Chesterfields... They Satisfy

Copyright 1937, Liggett & Myers Tobacco Co.

TETANUS
GAS GANGRENE ANTITOXIN

Use as a prophylactic agent in cases of compound fractures, lacerated wounds, and postoperatively when indicated, etc. The contents of one syringe is injected at weekly intervals until the wound is healed. U.S.S.P. Laboratories are noted for the production of highly refined tetanus antitoxin. Only young, vigorous and healthy horses are used. The antitoxin is sterile and free from toxic fractions. Write for full information.

U.S.S.P. Laboratories are operated under U. S. Government license No. 65 in compliance with all regulations of the U. S. Public Health Service.

U. S. STANDARD PRODUCTS CO.
WOODWORTH, WISCONSIN

Behind
MERCUROCHROME
(dibrom-oxymercuri-fluorescein-sodium)
is a background of

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.
BALTIMORE, MARYLAND

Cook County Graduate School of Medicine
(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES.

MEDICINE—Informal Course first of every week; Intensive Personal.

SURGERY—General Course One, Two, Three and Six Months; Two Weeks' Intensive Course Surgical Technique (Operative Surgery with Practice); Clinical Course. Courses available every week.

GYNECOLOGY—Two Weeks' Intensive Course starting September 20 and October 18.

FRACTURES & TRAUMATIC SURGERY—Informal Practical Course; Ten-Day Intensive Course starting October 11.

OPHTHALMOLOGY—Two Weeks' Intensive Course starting September 20.

OTOLARYNGOLOGY—Two Weeks' Intensive Course starting October 4.

UROLOGY—General Course Two Months; Intensive Course Two Weeks; Special Courses.

CYSTOSCOPY—Ten-Day Course every two weeks.

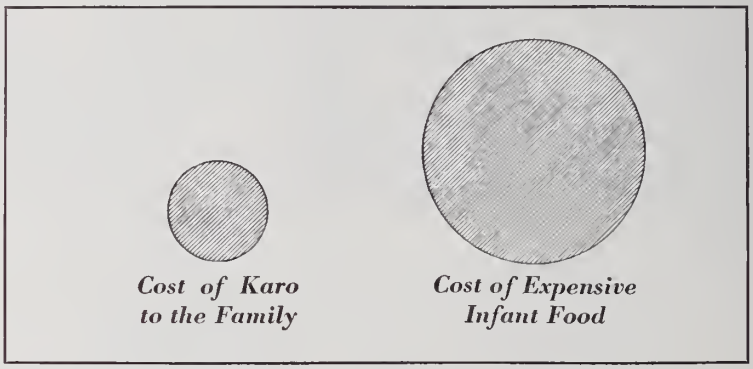
General, Intensive and Special Courses in all branches of Medicine and Surgery starting every week.

Teaching Faculty—Attending Staff of Cook County Hospital

Address: Registrar, 427 South Honore Street, Chicago, Illinois.

Help the Family Budget by Prescribing KARO

FOR INFANT FEEDING



ANY prescribed food which abundantly fulfills the baby's needs—and is available at low cost—is a boon to the mother, a blessing to the father. And the baby thrives! Karo Syrup is an effective carbohydrate. It is well-tolerated, practically non-fermentable, quickly utilized. The low price of Karo is based on its cost — not on its high value as an ideal infant food.

★ Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.

For further information, write

CORN PRODUCTS SALES COMPANY, Dept. SJ-8, 17 Battery Place, New York, N. Y.

SUMMER!

Summer days show a marked increase in accidental injuries. The vacationist, the farmer, the child at play may all suffer wounds contaminated with spores of tetanus and gas gangrene-producing bacteria.
Treatment of all dirt-contaminated, contused and penetrating wounds should include combined prophylaxis against tetanus and gas gangrene.

ACCIDENTS!

We suggest Parke-Davis Tetanus-Gas Gangrene Antitoxin (Combined), Refined and Concentrated. The customary prophylactic dose—1500 units tetanus antitoxin and 2000 units each perfringens and vibrion septique antitoxin—is available in syringe packages and in rubber-diaphragm-capped vials.

PROPHYLAXIS!

PARKE, DAVIS & COMPANY • Detroit, Michigan

The World's Largest Makers of Pharmaceutical and Biological Products

THE SUMMIT HOSPITAL

Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Homelike Environment

Excellent Cuisine

Moderate Rates

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

Illustrations from Balyeat's *Allergic Diseases: Their Diagnosis and Treatment*, 4th edition, Copyright, F. A. Davis Company, Publishers.

Last Minute Hay Fever Relief

For the hay fever patient who postpones treatment until the onset of symptoms, prescribe 'Benzedrine Inhaler'.

It provides prompt symptomatic relief, and may be carried in the pocket ready for instant use at any time or place.

BENZEDRINE INHALER

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

Each tube is packed with benzyl methyl carbinamine, S.K.F., 0.325 gm.; oil of lavender, 0.097 gm.; and menthol, 0.032 gm.

'Benzedrine' is the registered trade mark for S.K.F.'s nasal inhaler and for their brand of the substance whose descriptive name is benzyl methyl carbinamine.

A VOLATILE VASOCONSTRICTOR

SMITH, KLINE & FRENCH LABORATORIES

PHILADELPHIA, PA. ESTABLISHED 1841

When a liquid vasoconstrictor is indicated—Prescribe BENZEDRINE SOLUTION

PROTECTION OF VITAMIN C IN CANNED FOODS AGAINST ENZYMATIC DESTRUCTION

• One of the unusual features of modern food preservation by canning is the high degree of protection afforded vitamin C during the canning procedure. Of all the vitamins, C is probably the most readily destroyed. Spinach, for example, will lose one-half its vitamin C content upon standing three days at room temperature and practically all of its antiscorbutic potency in seven days' time (1).

Oxidation is the principal factor operating in the destruction of vitamin C. The rate of oxidation depends—among other things—upon temperature, degree of exposure to oxygen, and presence of substances which catalyze the oxidation reaction. Chief among the catalysts is the enzyme known as ascorbic acid oxidase. This enzyme is instrumental in the loss of physiologically active forms of cevitamic acid (ascorbic acid) by catalyzing the transformation of this latter substance into dehydrocevitamic acid (dehydroascorbic acid), which is more readily decomposed by a nonenzymic reaction into a compound having no antiscorbutic activity. This enzyme is apparently widely distributed in the vegetable kingdom, having been found in cabbage, carrots, lima beans, parsnips, peas, pumpkin, spinach, squash, string beans, sweet corn and swiss chard. Fortunately, the cevitamic acid oxidase is completely inactivated by heating to 100°C. for one minute (2).

In modern canning practice field crops are harvested at the optimum stage of maturity and canned as rapidly as possible—usually within a few hours' time. Early in every canning procedure the product receives either a blanch or a pre-cook or exhaust, the primary purpose of which is to drive out air from biological tissues and to establish a vacuum by expanding the contents of the can by heat, contraction upon cooling resulting in a partial vacuum within the can. These preliminary heat treatments together with the heat process serve both to destroy oxidative enzymes and to remove most of the air from the can.

Thus, the various practices in the canning procedure combine to afford excellent protection for this most labile accessory food factor known as vitamin C.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) 1936, Food Research, 1, 1

(2) 1936, J. Biol. Chem., 116, 717

This is the twenty-seventh in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

DOCTOR YOU ARE INVITED

To Visit These Attractive

NEW HEADQUARTERS

New Home of Milwaukee Optical Mfg. Co. 4th Floor Bankers Building N. E. Corner East Wisconsin and North Water

Ideally Located For You, Doctor, To Conveniently And Readily Contact These New Offices And Plant

You have at your command the services and facilities of this large, complete, and soundly established supply house.

THE MILWAUKEE OPTICAL MFG. CO.

208 EAST WISCONSIN AVENUE MILWAUKEE, WISCONSIN

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St., Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268–2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D., Frederick Menge, M.D., S. C. Plummer, M.D.

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$32.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department

Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 8 Copyright, 1937, by The State Medical Society of Wisconsin AUGUST, 1937

Persistent Pyuria in Children*

By MEREDITH F. CAMPBELL, M. D.
New York

INFECTION of the urinary tract is one of the commoner diseases in children. Urinary infection, which is neither self-limited nor therapeutically cured within a period of four to six weeks, is quite regularly designated as chronic pyelitis or chronic cystitis. It is my purpose here to demonstrate that (1) chronic pyuria seldom reflects an uncomplicated disease, (2) demonstration of the associated etiologic factors regularly requires a complete urologic examination, and (3) urosurgical treatment is often necessary to control the infection or to save life.

Pyuria

Pyuria is the usual manifestation of urinary infection (table 1).** It always exists in such infection except during the first twenty-four hours of the disease in rare instances of hyperacute renal infection and in some cases of bacteriuria. Acute pyelonephritis, commonly designated as acute pyelitis, is generally correctly diagnosed and with relatively simple therapeutic attentions tends to run a self-limited course. Although most of these patients are symptomatically cured within two weeks and the urinalysis is usually negative after a month, in a large portion culture of the urine, as late as six months after the acute illness, will show the persistence of organisms (in Cabot's series, 50 per cent). No patient therefore should be discharged cured until two negative cultures of a catheterized urine specimen have been obtained. Moreover, in the study of urinary infections in females of any age, only catheterized specimens merit consideration. This applies also to males when the voided specimen cannot be aseptically collected.

TABLE 1

DIAGNOSIS WITH WHICH PATIENT WAS SENT OR ADMITTED TO THE HOSPITAL

Chronic Urinary Infection in 580 Children: Author's Series

Chronic pyelitis (or pyuria)	537
Enuresis	23
Renal stone	3
Renal tuberculosis	4
Cystitis	13
	580

In the cases of persistent bacteriuria indicated in the preceding paragraph, recurrences of acute renal infection are clinically recognized as recurrent acute pyelitis and are likely to appear with each acute focal infection elsewhere (tonsillitis, enteritis, etc.) or with the onset of acute urinary obstruction. In some children with acute renal infection a pyuria will persist after the patient becomes symptomatically well. If this pyuria resists intensive medical therapy for two to four weeks a complete urologic examination is indicated. In nearly all children requiring such an investigation a urogenital anomaly which causes either urinary obstruction or stasis will be found. In short, chronic pyuria and anomalous development of the urinary tract are, in children, almost reciprocal.

Medical or Antiseptic Therapy

Before subjecting the child to a complete urologic examination because of persistent pyuria, an intensive course of medical treat-

* Presented before the 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936. From the departments of Urology, Children's Medicine and Children's Surgery, Bellevue Hospital, New York, and New York University College of Medicine.

** The statistical data in this paper is taken from the author's book Pediatric Urology, 2 vols., (in press). New York: The Macmillan Company.

ment is indicated. This includes urinary antisepsis which must be administered in much larger doses than customarily employed. My preference is methenamine or urotropin* and the basis of dosage is ten (10) to twelve and a half (12½) grains per day per year of age. Thus, a five-year-old child receives fifty (50) to sixty-five (65) grains in twenty-four hours. In children, I have given twice this amount without untoward effect.

As Helmholz has shown, the therapeutic coefficient of methenamine is directly proportional to the urinary acidity. In methenamine therapy one should attempt to get the urine as near *p*H 5.5 as possible. At this titre methyl orange paper turns red and this indicator should be used rather than litmus paper. This acidulation can be achieved only by use of a strong acidifier such as ammonium chloride (which I prefer), ammonium nitrate, or calcium chloride. The dose of acidulant usually equals that of the methenamine but must necessarily be altered to achieve or maintain the desired high acidity (*p*H 5.5). The medication is given for five to seven days when a rest period of one or two days is observed and during which time the urine is carefully examined, including culture. If infection remains, the medication is resumed for another five to seven days. As a rule, it is useless to persist with antisepsis longer than two weeks, for, if the urine cannot be sterilized in this time by this method, further similar efforts are likely to be futile.

In infants the medication is given in the formula. With older children it may be given in solution with a palatable syrup. Hematuria induced by formaldehyde cystitis (urotropin reaction) is purely of vesical origin and will promptly disappear following withdrawal of the medication.

* At the time this paper was written, mandelic acid therapy and the still more recent treatment of certain urinary infections by sulfanilamide or Prontylin had not been employed in this country. In the author's practice, urinary infections are now largely treated with these newer medications. Yet the development of these more powerful and satisfactory antiseptics in no wise alters the basic thesis of this paper, namely, that patients with antiseptic-resistant urinary infection should be subjected to a thorough urological investigation.

TABLE 2

UROLOGICAL EXAMINATION—RESUME OF CYSTOSCOPIC FINDINGS

Chronic Urinary Infection in 580 Children: Author's Series

Anesthesia:		
None		483
Local		77
Caudal		69
General inhalation		351
Intravenous		37
Total		1,017
Bladder:		
Normal		131
Residuum		53
Cystitis:		
Grade 1	35	
Grade 2	88	
Grade 3	51	
Grade 4	46	
Not designated	12	
Ulcerated	14	246
Cystitis cystica		3
Tuberculous cystitis		9
Trigonitis		22
Grade 2		41
Grade 3		26
Grade 4		34
Bladder granulomata		1
Bladder varices		2
Cystocele		3
Diverticula		11
Stone		12
Trabeculation		83
Hypotonic bladder		25
Trigonal curtain obstruction		2
Hypertrophied trigon (enough to cause obstruction)		1
Trigonal hypertrophy (due to obstruction)		29
Hemiatrophy trigon		4
Cord bladder		16
Ureteral orifices:		
One absent		5
Ectopic:		
Posterior urethra		5
Vestibule		1
Ureter opening into diverticulum		4
Reduplicated:		
Unilateral		25
Bilateral		8
Stenosed		24
Ulcerated		9
Retracted		5
Gaping		22
"Golf Hole"		7
Inflamed		67
Tender to catheter touch		6
Ureterocele		19
Ureteral prolapse		5
Intramural stricture:		
Unilateral		34
Bilateral		23
Bladder outlet:		
Contracted		19
Median bar		6
Hypotonic (relaxed)		23
Urethra:		
Meatus stricture (tight)		32
Ulcerated meatus stenosis		13
Caruncle		2
Urethral stones		2

Urethritis:	
Anterior	3
Posterior	Many
Urethral stricture	9
Prostatitis	8
Posterior congenital valves	26
Hypertrophy verumontanum	8
Verumontanitis	17
Urethrorectal fistula	3
Diverticulum of urethra	3

Other urinary antiseptics include caprokol, pyridium, serenium, neutral acriflavine and methylene blue, but if methenamine therapy is unsuccessful these other antiseptics also are almost certain to fail. Although the use of mandelic acid as a urinary antiseptic has as yet been limited, it promises to be of value in the treatment of many urinary infections in children.

The ketogenic diet is successful in sterilizing the urine of children in about 60 per cent of the cases. I have frequently employed it following surgical treatment. Moreover, the ketogenic diet will often sterilize the urine in patients with important anomalies of the urinary tract, and for this reason a urologic examination is indicated in these patients even though, during the therapeutic period, the ketogenic diet was successful. In other words, the very persistence of the urinary infection prior to ketogenic diet therapy suggests the likelihood of a urinary anomaly or obstruction.

TABLE 3

UROLOGICAL EXAMINATION—PYELOGRAPHIC FINDINGS

Chronic Urinary Infection in 580 Children: Author's Series

	Right	*Left*	*Bilateral*	*Total*
Normal pyelograms				201
Dilatation of one calyx	3	3		6
Hydronephrosis	57	35	36	128
Pyelonephritis	7	8	41	56
Pyonephrosis	13	9		22
Hemipyonephrosis (reduplicated kidney)	7	4		11
Renal tuberculosis	5	3	1	9
Renal stone	6	2		8
Renal tumor	2	3		5
Renal ptosis	6	1		7
Renal rotation	1	1		2
Solitary kidney	5	2		7
Aplastic kidney	1	2		3
Ureteral stricture	47	31	23	101
Dilated ureter	29	48	62	139
Ureter reduplication:				
Complete	16	9	8	33
Partial	9	13	3	25
Ureteral kink	2	2		4
Ureteral obstruction by aberrant vessel*	4	6	1	11
Ureteral stone		2		2
Pyoureter	1	1		2
Ureteral reflux (cystogram)	32	35	52	119
Ectopic orifice in urethra	2	3	1	6
Perinephritic abscess	1	2		3
Report or films lost, 14				

* Seven additional diagnosed; no confirmation.

Urologic Investigation

A correct anatomic diagnosis in chronic pyuria can be made only by a complete urologic examination. Residual urine may be present or the x-ray may demonstrate a urinary calculus. Although excretory (intravenous) urography will often suffice to establish the diagnosis, in most instances it must be considered only a precystoscopic investigation from which to glean as much information as possible before the instrumentation is attempted. A complete urologic examination including cystoscopy, ureteral catheterization, divided renal function tests, and retrograde pyelography can be performed without general anesthesia in about three fourths of all children (table 2). During the past four years I have used caudal anesthesia more than 150 times in boys three years and over. During the past eighteen months I have used intravenous anesthesia (evipal) for brief instrumentation in more than sixty cases. It is fitting to note here that instrumental reactions following complete urologic examination in children are less than half as frequent and severe as in adults. Fear of an unfortuitous reaction need never be considered a contraindication to cystoscopic examination in a child.

Uropathology in Chronic Pyuria in Children

Obstruction is the principal predisposing cause of urinary infection. The urinary tract above the obstruction becomes congested. The congested organ is more vulnerable to bacterial attack than the normal organ, and organisms which are continually reaching the kidney by the blood stream find a suitable soil of growth. Not only does obstruction predispose to infection, but, once it is established in the presence of obstruction, the infection can rarely be eliminated until the blockage is eradicated. Neuromuscular in-

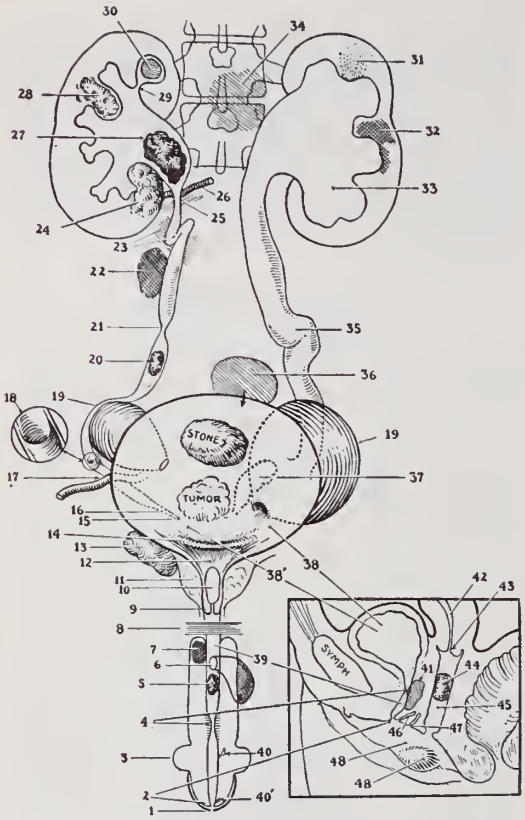


Fig. 1. Causes (direct or indirect) of pyuria. It is obvious that the majority of these lesions will require some type of urosurgical treatment. 1, Stenosis of prepuce; 2, stenosis of urethral meatus; 3, paraphimosis; 4, urethral stricture; 5, urethral stone; 6, urethral diverticulum; 7, periurethritis; periurethral abscess; 8, cowperitis; chronic external sphincterospasm; 9, congenital valves of posterior urethra; 10, hypertrophy of verumontanum; verumontanitis; 11, prostatitis; prostatic abscess; 12, contracted bladder neck; median bar; 13, periprostatitis or pelvic suppuration; 14, mucosal fold at bladder outlet; trigonal curtain; 15, stricture of ureteral meatus; ureterocele; 16, ureterovesical junction stricture; 17, vascular obstruction of lower ureter; 18, congenital ureteral valves; 19, ureteral obstruction by diverticulum compression; 19[1], diverticulum; 20, ureteral stone; 21, ureteral stricture; 22, periureteritis; periureteral phlegmon or abscess; 23, ureteral kink; periureteral fibrous bands; 24, renal tumor; 25, ureteropelvic junction stricture; 26, aberrant vessel (obstruction of upper ureter); 27, pelvic stone; 28, renal tuberculosis; 29, stricture of calyceal outlet; 30, calyceal stone; 31, pyelonephritis; 32, pyonephrosis; 33, "pyelitis"; infected hydronephrosis; 34, perirenal suppuration invading urinary tract; spinal disease (Pott's, etc.); 35, hydro-ureter; 36, pericystic abscess rupturing into the bladder; 37, seminal vesiculitis; 38, neuromuscular vesical disease; 38[1], cystitis; 39, urethritis; 40, folliculitis (Littre); 40[1], folliculitis (Morgagni); 41, periurethritis; periurethral abcess; 42, endometritis; 43, cervicitis; 44, foreign body in vagina; 45, vaginitis; 46, skenitis; 47, folliculitis of introitus; 48, bartholinitis.

ertia, such as is commonly observed in cord bladder disease, must also be considered as a cause of urinary stasis (table 2).

The common potential causes of urinary obstruction and, by the same token, the common predisposing causes of urinary infection are shown in figure 1. There may be a congenitally tight preputial orifice or stricture of a renal calyx. Between these anatomic extremes one or more of a legion of uro-obstructive conditions may exist (tables 2 and 3). I have seen several boys said to have chronic pyelitis, but in whom the pyuria was proved to be perpetuated by a tight prepuce. Circumcision or a generous dorsal slit was commonly followed by a disappearance of the pyuria. This justifies the conclusion that the

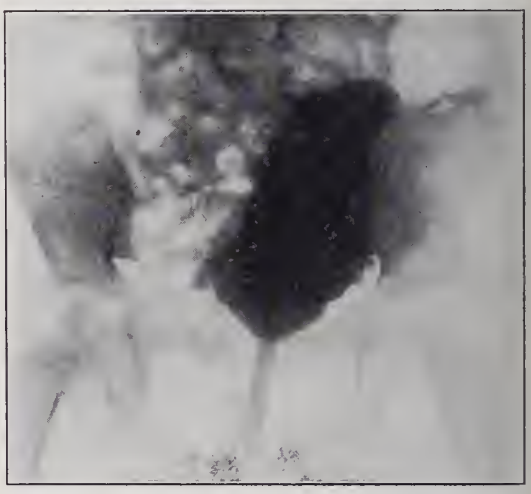


Fig. 2. Congenital stricture of the urethra in a girl of thirteen months. In this cystogram the bladder outline with its abnormal position and its irregularity due to numerous large saccules is identical with that seen in late prostatism. Treatment: repeated urethral dilatation with sounds. Persistent pyuria, which had been diagnosed chronic pyelitis and which had existed for several months, was the indication for urologic examination.

pyuria resulted from subpreputial urinary retention, stagnation and infection. Frequently the meatus is congenitally tight and produces urinary stasis. I have seen this many times in boys an in a few girls, some in whom urinary back pressure caused dilatation of the entire upper urinary tract. In figure 2 is shown the cystogram of a girl of thirteen months with congenital stricture of the urethra. Her bladder picture is similar

to that observed in advanced prostatism. Lesions commonly found in the deep male urethra are congenital valves, hypertrophy of the verumontanum, and congenital contracture of the vesical outlet. All of these may cause urinary obstruction with severe back pressure renal damage, and eventually important infection will occur. Most children in whom I have clinically discovered the foregoing lesions were examined because of persistent pyuria.

Neuromuscular vesical disease, usually designated as cord bladder, is not uncommon

Fig. 3. Congenital malformation of the sacrum (lateral deviation and curvature) in an eleven-year-old boy with neuromuscular vesical disease examined because of persistent pyuria and enuresis. The malformation resulted in motor and sensory loss of the five sacral nerves and produced a saddle anesthesia of the perineum.

in children. There are seventy-nine cases in my series. It is frequently associated with anomalies of lower spinal or neural development (figure 3). Clinically important spina bifida occulta is frequently found in these cases. Yet in some of the most advanced instances of cord bladder in children, and in whom the residual urine was as much as sixteen ounces, careful neurologic examination of the lumbosacral innervation failed to

Fig. 4. Cord bladder of the sphincterospastic type due to myelitis in an eight-year-old girl. Residuum six ounces. The urine showed 25 per cent pus by volume. In the above cystogram the extreme destruction of the upper urinary tract by urinary back pressure and infection is notable. Best phthalein excretion was 12 per cent in two hours. Preliminary suprapubic cystotomy drainage was later followed by resection of the vesical outlet by the miniature Young punch. This reduced the residuum to 15 cc., but because of the persisting grave condition the suprapubic drainage was made permanent. Uremic death two years later.

Fig. 5. Laminated bladder stone in a nineteen-month-old boy without demonstrable obstruction at the vesical outlet or in the deep urethra. Urological examination because of "chronic pyelitis." Suprapubic lithotomy. Cured.

reveal either sensory or motor abnormalities (figure 4). Occasionally in these cases laminectomy is of value but as a rule the prognosis is unfavorable.

Bladder stone and diverticula are commonly associated with pyuria and are secondary complications in 5 to 10 per cent of all cases of infravesical obstruction (figure 5).

Congenital stricture of the ureter is the commonest obstructing lesion of the upper urinary tract. In 12,080 pediatric autopsies which I have recently tabulated, congenital ureteral stricture occurred in seventy-two instances (1:168). Yet it is an extremely common clinical finding in children with chronic pyuria (101 of 580 cases or 17.3 per cent). Except in the presence of infection, congenital ureteral strictures rarely show sclerosis; they are merely anomalous narrowings comparable to the congenital narrowings frequently seen in the esophagus, at the pylorus, further down in the intestinal tract, and in the larger biliary ducts. Ureteral strictures occur most often at the lower end of the tube, are next most common at the upper end (figure 6), and are rarest in the middle. Frequently they are bilateral (figure 7) and may be multiple, but I have never seen more than three strictures in one ureter.

The demonstration of stricture requires a careful urologic examination (table 3). Many congenital strictures can be adequately treated by ureteral dilatation; for this purpose I have recently devised a special miniature dilating cystoscope (17 F.) which will take a ureteral bougie as large as a slate pencil (10 F.). This affords ample dilatation for any child up to the age of puberty (table 4).

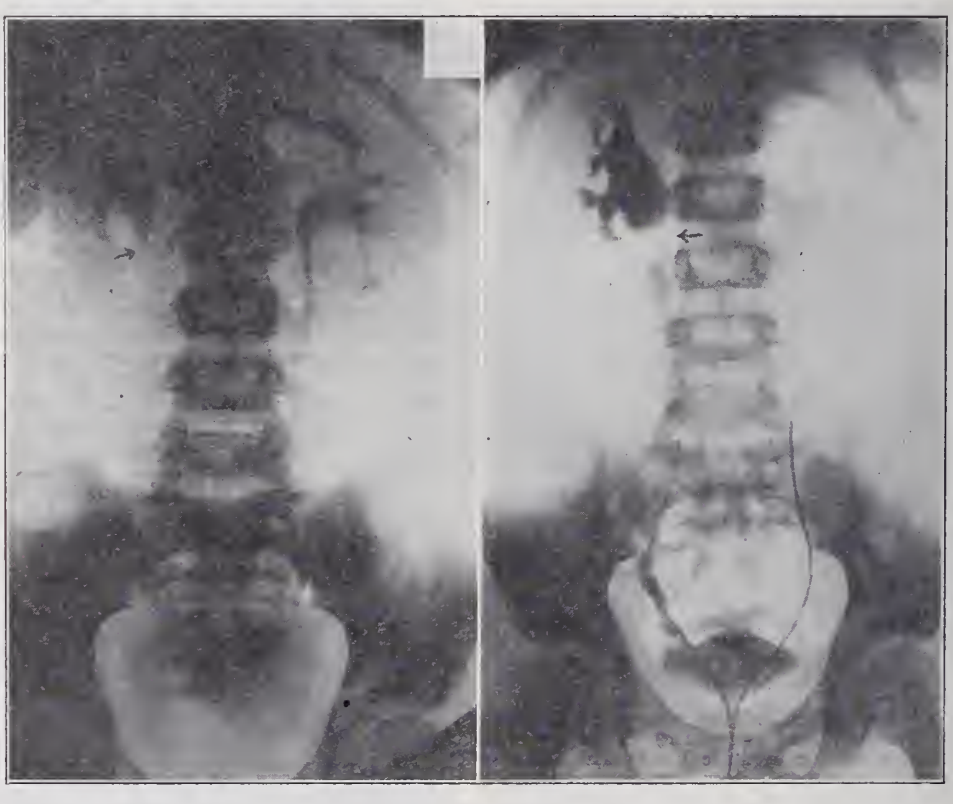


Fig. 6. Chronic right infected hydronephrosis in an eight-year-old boy. A congenital ureteropelvic junction stricture (arrow) caused the obstruction. Exposure of the kidney indicated nephrectomy. Left kidney normal. In the above pyelograms, that on the left is by the excretory (intravenous) route; that on the right is by retrograde injection.

It is axiomatic that an anomalous organ is more prone to disease than a normal one. Nowhere is this better exemplified than in ureteral reduplication, a condition found in

TABLE 4

TREATMENT EMPLOYED IN 580 CASES OF CHRONIC PYURIA IN CHILDREN

None (refused 9)	30
Medical (chiefly antiseptic)	187
Ketogenic diet	33
Nephrectomy	46
Ureteronephrectomy	15
Ureteroheminephrectomy	8
Nephrostomy	10
Pyelotomy (stone)	1
Nephropexy	9
Renal exploration	1
Resection of aberrant vessels	6
Ureteropelvioplasty	4
Perirenal abscess (incision and drainage)	3
Ureteral dilatation	55
Ureteral dilatation with lavage ($AgNO_3$)	17
Indwelling ureteral catheter	6
Bilateral transvesical ureteral meatotomy	6
Fulguration ureterocele	3
Ureterostomy:	
Unilateral	2
Bilateral	3
Bilateral ureteral resection	3
Transplant ureter to bladder	3
Indwelling urethral catheter	21
Cystotomy:	
For temporary drainage	25
For permanent drainage	4
Cystolithotomy	6
Litholapaxy	3
Resection of trigon	1
Diverticulectomy	5
Electro-resection of urethral valves	22
Suprapubic excision of valves	2
Electro-resection of bladder outlet:	
For cord bladder	3
For contracture or bar	15
Suprapubic resection of bladder outlet:	
For cord bladder	2
For contracture or bar	4
Punch operation:	
For cord bladder	1
For contracture or bar	3
Dilatation of bladder outlet	15
Urethral dilatation	34
Urethrotomy	2
Resection of urethral diverticulum	1
Dorsal slit	3
Circumcision	2
Meatotomy	49
High voltage roentgen therapy	3
To tuberculosis sanatorium	4
Corset for nephroptosis	1

about 0.5 per cent of all individuals (figure 8). In 26,480 autopsies we found 166 cases reported, an incidence of 1:160. Yet in 580 children with persistent pyuria the incidence was 1:8 or twenty times as great, and in all of these children the anomaly was a fundamental etiologic factor in causing the pyuria to persist. In many of these cases both divisions of the ureter and of the reduplicated kidney were involved by infection or obstruction. Yet in a surprising number only half of the reduplicated organ was diseased and in thirteen children, ranging in age from five months to eight years, ureteroheminephrectomy—removal of the diseased half of the kidney and the reduplicated ureteral segment draining it—cured the pyuria.

Fig. 7. Congenital bilateral uretrovesical junction stricture in boy of seven months examined because of persistent pyuria. Advanced urinary back pressure injury of the ureters and kidneys. Surgical treatment of this boy covered eight months during which time the following major operative procedures were employed at intervals of eight to ten weeks: bilateral ureteronephrostomy, bilateral transvesical ureteral meatotomy (through the open bladder), bilateral ureteral resection with end-to-end anastomosis and with the excision of about four inches of redundant ureter on each side.

In some instances the ureteral orifice is ectopic and opens into the urethra or, rarely, into the vestibule (figures 8 and 9). A ureter with an ectopic orifice almost always shows evidence of urinary stasis, and infection is an extremely common complication. In a girl of thirteen months, with persistent pyuria since the age of five months, urologic examination revealed complete bilateral ureteral reduplication (figure 8). The ureter from the lower pelvis of the kidney on each side opened normally into the bladder. The

ureter from the right upper pelvis—and this was uninfected—opened into the posterior urethra. The ureter from the pyonephrotic upper segment of the left kidney opened into the vestibule. By squeezing the left loin,

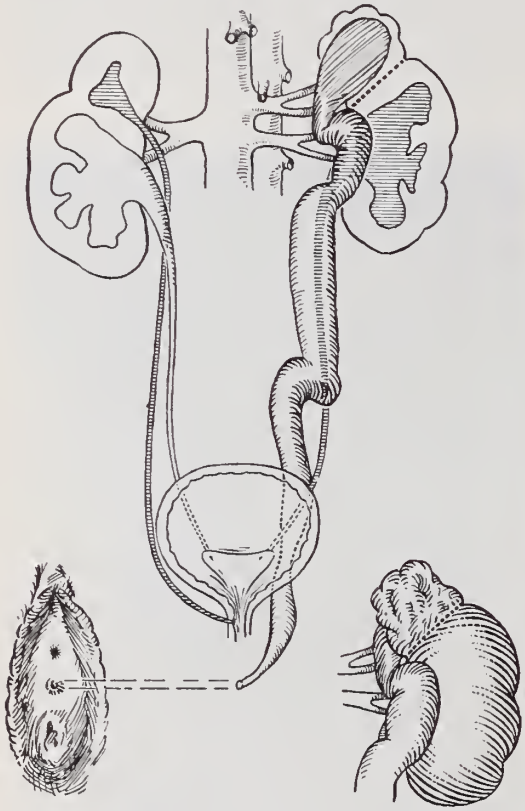


Fig. 8. Bilateral ectopic ureteral orifices in a girl of thirteen months examined because of chronic pyuria. The ureters from the lower pelves opened normally into the bladder. The ureter from the right upper pelvis opened into the posterior urethra. The greatly dilated infected ureter from the pyonephrotic upper half of the reduplicated left kidney opened into the vestibule just between the urethral meatus and the vaginal orifice. Left ureteroheminephrectomy. The wrinkled, atrophic condition of the resected portion of the left kidney is indicated in the lower right insert. By squeezing the left upper loin, thick, ropy pus, resembling tooth paste, was made to appear from the orifice in the vestibule.

thick pus, resembling toothpaste, was seen to exude from the ectopic opening in the vestibule. Left ureteroheminephrectomy cured the infection; the diseased upper half of the kidney was resected and the ureter draining it was removed en masse almost to its urethral opening.

Ureteral calculi are occasionally found. In a girl of nineteen months, examined because of chronic pyuria, a small uric acid stone was seen in the bladder and two uric acid stones were demonstrated by negative pyelography and scratch of a wax bulb in the left ureter, on which side the pyuria originated. Spontaneous passage of these stones followed instrumental dilatation of the ureter.

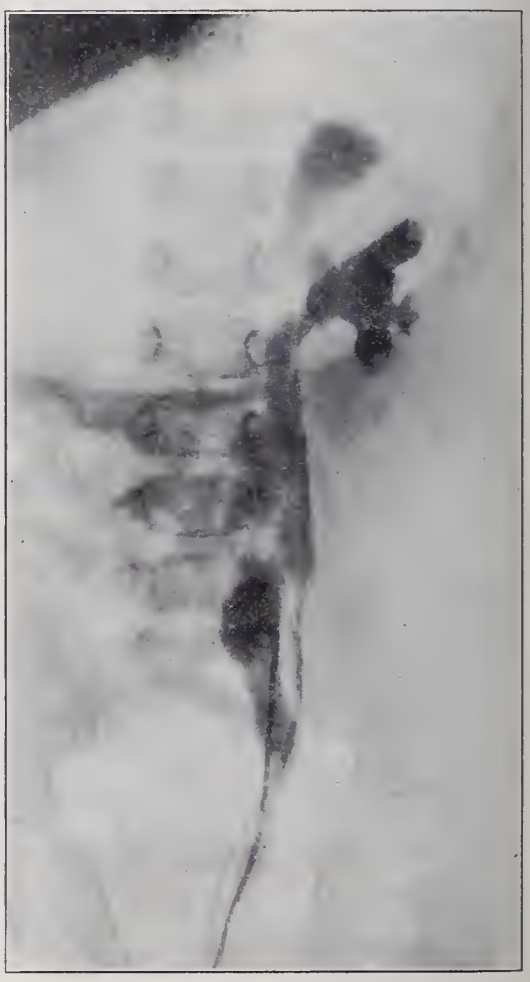


Fig. 9. Left pyelogram in figure 8.

Aberrant vessels are frequent causes of ureteral obstruction. About a third of all kidneys show anomalous vessels, most of which pass from the upper pole or from the lower pole, chiefly to the vena cava or aorta. Those vessels which pass from the lower pole cross and frequently cause pressure on the

upper ureter. This induces hydronephrosis which often becomes infected and which is likely to be clinically manifested only by persistent pyuria. Quite uniformly these children are said to have chronic pyelitis (figure 10). I have now operated on seventeen cases of vascular obstruction of the ureter in children. In three of these, antecedent attacks of Dietl's crises, induced by the vascular obstruction, had caused the appendix to be removed. When renal injury is not pronounced, resection of the vessels is frequently curative. Yet most children are not seen until the hydronephrotic damage is extreme and nephrectomy is required. In ten of the seventeen children above referred to, the kidney had to be removed.

Anomalous vascularization in the depths of the female pelvis may also cause ureteral obstruction. The uterine artery is usually the obstructing vessel, but a branch of the iliac or hypogastric vessels may compress the ureter. In a girl of thirteen months, with persistent pyuria, the diagnosis of vascular obstruction of the lower ureter was made by urography and was confirmed at operation. An artery, vein, and band of fibrous tissue firmly compressed the ureter at a point 1 cm. above the ureterovesical junction and were urographically indicated by a transverse filling defect. I have seen apparently this same condition in three other young children but the diagnosis lacks surgical confirmation.

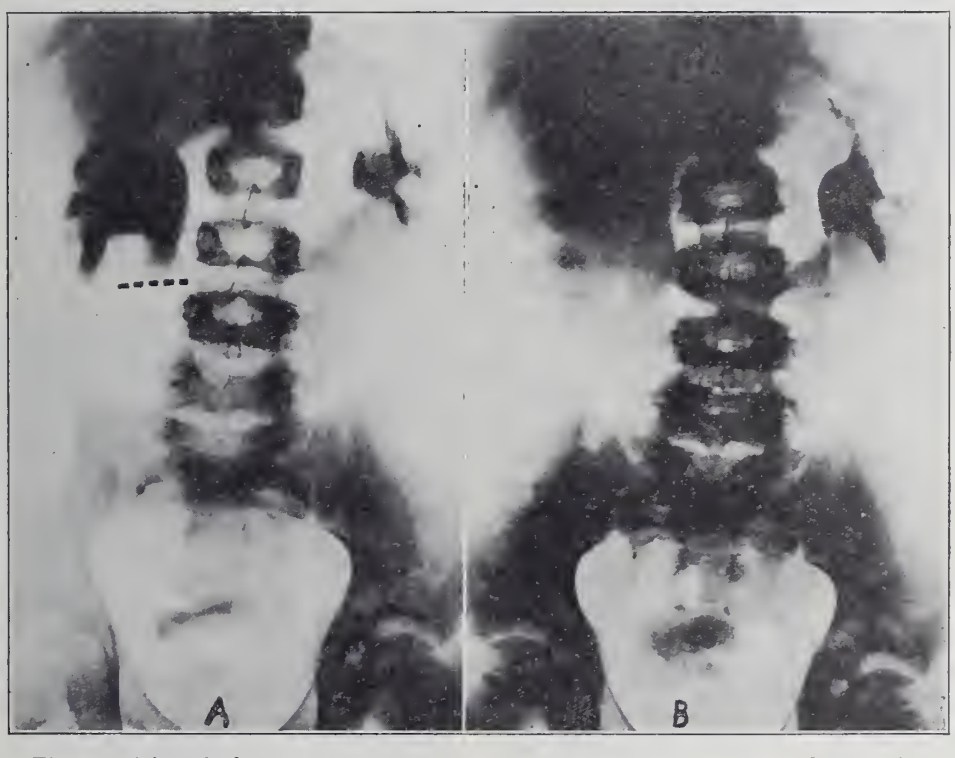


Fig. 10. Right hydronephrosis (infected) secondary to aberrant vessel blockage in a four-year-old boy. The course of the obstructing vessel is indicated in the retrograde pyelogram on the left. It is notable that none of the injected media leaked past the site of vascular compression to the ureter below. The intravenous pyelogram on the right fails to tell the story, merely indicating advanced hydronephrosis. This kidney was saved by resection of the obstructing vessel.

Stones in the kidney are not uncommon in children; there are ten cases in my personal series. I have removed a kidney for stone pyonephrosis from a boy of six months and from a girl of two years (figure 11). Doubtless most of the small renal stones of childhood pass spontaneously, the passage being interpreted as intestinal colic. Many calculi in childhood are composed of pure uric acid

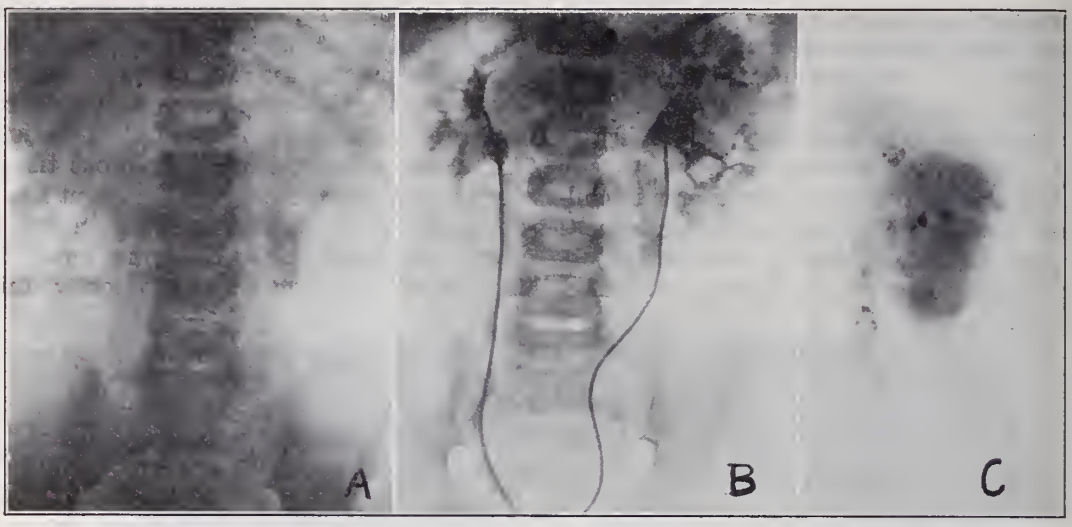


Fig. 11. A. Large branching calculus in the left kidney of a two-year-old girl examined because of persistent "pyelitis." Stone pyonephrosis. B. Bilateral pyelogram in A. The right kidney is normal; the left is destroyed by stone and infection. Nephrectomy. C. Postoperative x-ray of removed kidney. The stone has been broken up and a large portion of it now fills the upper ureter.

and hence are not radiopaque. They must be demonstrated either as (1) negative or vacuolated shadows in the radiographic media or (2) by passage of a wax bulb ureteral bougie which the stone scratches. Renal stones in children occasionally can be removed by pyelotomy, thus preserving the kidney when it is worth saving.

Chronic suppurative pyelonephritis is occasionally found. In some of these cases neither antecedent obstruction nor any other predisposing factor can be demonstrated at the time the examination is made. This difficulty in identifying the pathologic sequence is frequently due to marked secondary inflammatory changes in the ureters and renal pelves (figure 12).

Chronic renal tuberculosis must not be overlooked in the young; there are eighteen cases in my series. One in every fifty cases of so-called chronic pyelitis in children is surgical renal tuberculosis. The dominant clinical manifestations almost always lead to the diagnosis cystitis which may be designated as acute, subacute or chronic. Having established the diagnosis, nephrectomy offers the only hope of cure and should be performed without great delay except when contraindicated by bilateral renal involvement or insufficiency of the "better" kidney.

Fig. 12. Vesico-ureteral reflux in chronic pyelonephritis in a four-year-old girl. The lower ureteral segment is slightly irregular. Doubtless the secondary ureteral kink in the upper right ureter is a factor in the production of the atonic hydronephrosis. Yet reflux past the kink freely occurs. The bladder outline is normal. Infection on the left is mild and the renal function is good. Right ureteronephrectomy.

Summary

Attention has been directed to the more common lesions which help to cause chronic pyuria in children. The high incidence of these conditions and the relative infrequency of their correct recognition, especially when the upper urinary tract is involved, is a challenge to all medical practitioners. The greatest progress in diagnosis and treatment in this field will come only through closer cooperation of pediatricians and urologists.

In chronic pyuria a congenital anomaly of the urinary tract should be assumed to exist until proved otherwise. Infants and children tolerate complete urologic examination better than their elders; reactions are only half as frequent and are much less severe in the young patients. Certainly fear of undesirable sequelae should never be permitted to rule against a thorough urologic investigation when it is otherwise indicated.

One admonition I would leave with you: Examine the urine.

140 East 54 Street
New York City

Roentgenologic Contributions to the Localization of Tumors Affecting the Spinal Cord*

By JOHN D. CAMP, M. D.

Section on Roentgenology, The Mayo Clinic, Rochester, Minnesota

CONTINUED refinements in neurologic diagnosis have contributed much to the earlier recognition of the presence of tumors of the spinal cord. Roentgenology, however, except for the use of lipiodol in the subarachnoid space, advocated by Sicard and Forestier[1] in 1922, contributed little until recent years toward the localization of these lesions.

Notwithstanding the fact that the secondary changes in bone produced by tumors that are primary in the spinal cord and associated tissues had long been recognized and repeatedly emphasized by neurosurgeons, no attempts were made to correlate these observations with changes in roentgenograms until 1931. Prior to that time, Pancoast[2] in 1918 had stated that tumors of the spinal cord could not be recognized by roentgenography, and Carman and Davis[3] in 1924 largely confirmed this belief by concluding that the practical value of direct roentgenologic examination was slight and that it was impossible to demonstrate the tumors themselves by this method.

In 1931 Adson, Shugrue, and I[4] presented data obtained from a review of all the available roentgenograms in cases of tumors of the spinal cord in which patients were operated on at The Mayo Clinic prior to 1931, and found that changes in bone, particularly erosions resulting from a contiguous tumor of the spinal cord or soft tissues, could be observed in 15 to 20 per cent of all cases. Because of the significance of these changes and their value in permitting exact localization of the tumor roentgenographically without additional procedures, the observations were continued in all subsequent cases in which tumor of the spinal cord was suspected. In this group which I reported in 1933,[5] osseous changes which directly localized the lesion were observed roentgenographically in 50 per cent of the cases. The growths were divided into three groups: (1) benign tumors arising from soft tissues within the spinal canal, (2) malignant tumors arising from soft tissues within the spinal canal, and (3) tumors and protrusions of the intervertebral disk involving the spinal canal.

All of the benign tumors involve the bone in a similar manner, that is, by erosion from pressure. They have no individually distinguishable roentgenologic characteristics except the neurofibromas which have a tendency to extend through an intervertebral foramen and to produce an hour-glass tumor

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

partly within and partly without the spinal canal. As the tumor grows, the adjacent portions of the vertebra are eroded and the spinal canal is enlarged by direct pressure and pulsations of the cord and vessels. The margins of the eroded area are sharply demarcated and coincide with the surface of the tumor or displaced spinal cord. One or both pedicles of the vertebra at the level of the tumor usually exhibit evidence of erosion before it can be discovered in the lamina or body. The pedicle is first flattened on the mesial aspect and the cortical surface is rarefied. As the tumor enlarges, the surface of the pedicle becomes concave and in the end is entirely destroyed. Later, as the tumor increases in extent, the pedicles of several vertebrae may be involved and the erosion of the laminae and posterior surfaces of the vertebral bodies, with consequent enlargement of the spinal canal, becomes quite evident. Occasionally calcareous psammoma bodies within a meningioma are dense enough to permit identification of the tumor.

Malignant tumors arising from soft tissues within the spinal canal include both primary and metastatic lesions. The intramedullary tumors, particularly the gliomas, with the exception of the ependymal-cell gliomas of the filum, do not commonly involve the vertebrae secondarily. When such is the case, the expanding spinal cord produces enlargement of the spinal canal by erosion of its component bony structures. Ependymal-cell gliomas of the filum involve the surrounding bone in the same manner as benign tumors. Primary or metastatic malignant tumors of the dura or soft tissues about it invade the surrounding vertebral parts and thereby produce the well-known roentgenographic picture of malignant disease of bone.

Tumors and protrusions due to trauma of the intervertebral disk may involve the spinal canal and, according to Elsberg,[6] they constitute 14 per cent of spinal cord tumors. Because of their cartilaginous nature they are not themselves visible in roentgenograms. The tumor, however, because of its growth, may widen the posterior portion of the intervertebral space and even erode contiguous surfaces of the intervertebral bodies. With the traumatic variety the intervertebral space may be narrowed, although not necessarily so, owing to previous compression and prolapse of a portion of the disk. Calcification and even ossification of these intraspinal protrusions have been noted. In doubtful cases, however, the diagnosis is dependent on the use of a radiopaque oil in the subarachnoid space to outline the protrusion.

In 1933 Elsberg and Dyke[7] called attention to the value of measuring the distance between the mesial borders of vertebral pedicles at the same level as an aid in the recognition of erosion of the pedicles and enlargement of the spinal canal at the site of an expanding intraspinal lesion. By plotting these measurements on a chart, showing curves for the usual and maximal normal interpedicular distances, they were able to demonstrate an increase in the interpedicular distance at the level of the lesion in 42 per cent of a series of sixty-seven cases of tumor of the spinal cord. In 79 per cent of the cases in which there was a pathologic increase in the interpedicular distance, a flattening of the pedicles, which I have emphasized as an early sign of tumor of the spinal cord, occurred. Since early erosion of the pedicles may be difficult for the less experienced examiner to recognize, the routine use of interpedicular distances in cases in which patients are suspected of having a tumor of the spinal cord will undoubtedly result in the identification of certain cord tumors that otherwise would be overlooked.

I cannot agree, however, with the conclusion of Elsberg and Dyke that flattening of the pedicles is of pathologic significance only if the interpedicular distance is increased at the same level, because in a recent series of twenty-three cases in which the tumor was localized by the roentgenologist on the basis of erosion of the pedicles, with or without coexistent erosion of the laminae or body of the vertebra, the interpedicular distance at the level of the tumor was within the normal limits in ten cases (43.5 per cent). These authors also stated that intradural extramedullary tumors rarely produce

gross changes visible in roentgenograms. In our experience at the clinic, 21.6 per cent of such tumors provoked bony changes which were recognized by the roentgenologist as indicative of tumor of the spinal cord.

Clinic Studies

We have recently studied 198 verified cases of lesions of the spinal cord in which patients were operated on at the clinic in the last five years. The results of these studies bring out several interesting points: In our experience the number of patients with cord tumor coming to operation is increasing each year, and of no little significance is the fact that the average size of these tumors is considerably smaller than those formerly encountered at operation. This reflects in no small way the increasing accuracy of the clinical diagnosis of these lesions. In keeping with this fact that cord tumors are being diagnosed and are being operated on earlier is the evidence that only 30.3 per cent of our recent group of tumors were large enough to provoke secondary erosion in the contiguous vertebrae sufficient to permit direct roentgenologic localization of the lesion. The value of lipiodol in the earlier diagnosis of tumors affecting the spinal cord is emphasized by the fact that, in this group of cases, it made possible localization of the lesion in seventy-two instances, with but one error.

In the past it was generally believed that when a tumor was large enough to erode a contiguous vertebra, complete or partial block of the cerebrospinal fluid existed. Our recent studies reveal that, in twenty-five cases with erosion of bone, the cerebrospinal fluid was completely blocked; in nine cases the cerebrospinal fluid was partially blocked. In both groups the serum protein of the cerebrospinal fluid was elevated. In ten cases, however, there was no obstruction of the cerebrospinal fluid, and in eight of these cases the serum protein of the cerebrospinal fluid was normal. It is evident, therefore, that the roentgenographic evidence may be more significant than the findings on examination of the cerebrospinal fluid in about 6 per cent of cases of tumors affecting the spinal cord.

TABLE 1

TUMORS OF THE SPINAL CORD

Type	*Cases*	*Changes in bone* *Cases*	*Per cent*
Extradural	53	25	47.2
Subdural	111	24	21.6
Intramedullary:	24	3	12.5
Filum	10	8	80.0
Total	198	60	30.3

TABLE 2

CLASSIFICATION OF TUMORS

	Cases	*Changes in bone* *Cases*	*Per cent*
Neurofibroma	54	24	44.4
Meningioma	43	4	9.3*
Intramedullary:	24	3	12.5
Filum ependymal-cell	10	8	80.0
Hemangioma and hemangioendothelioma	14	3	21.4
Lipoma	3	3	100.0
Prolapsed disk	11	4†	36.3
Inflammatory lesion	8	0	0

* Calcified in two additional cases (13.9 per cent)
† Narrowed intervertebral space

REFERENCES

1. Sicard, J. A., and Forestier, J.: Méthode de générale de l'exploration radiologique par l'huile iodee (lipiodol). Bull. et mém. Soc. méd. d. hôp. de Par., 1:463-469 (March 17) 1922.
2. Pancoast, H. K.: In: Frazier, C. H.: Surgery of the Spinal Cord. New York: D. Appleton and Company, 1918, p. 593.
3. Carman, R. D., and Davis, K. S.: Roentgenologic Evidence of Spinal Cord Tumors; Report of Three Cases. Radiology, 3:185-188 (Sept.) 1924.
4. Camp, J. D., Adson, A. W., and Shugrue, J. J.: Roentgenographic Findings Associated with Tumor of the Spinal Column, Spinal Cord, and Associated Tissues. Am. J. Cancer, 17:348-372 (Feb.) 1933.
5. Camp, J. D.: The Significance of Osseous Changes in the Roentgenographic Diagnosis of Tumors of the Spinal Cord and Associated Soft Tissues. Radiology, 22:295-303 (March) 1934.
6. Elsberg, C. A.: The Extradural Ventral Chondromas (Ecchondroses): their favorite sites, the spinal cord and root symptoms they produce, and their surgical treatment. Bull. Neurol. Inst. New York, 1:350-388 (June) 1931.
7. Elsberg, C. A., and Dyke, C. G.: The Diagnosis and Localization of Tumors of the Spinal Cord by Means of Measurements Made on the X-Ray Films of the Vertebrae, and the Correlation of Clinical and X-Ray Findings. Bull. Neurol. Inst. New York, 3:359-395 (March) 1934.

DISCUSSION

Dr. John L. Garvey (Milwaukee): Dr. Camp has covered the question of x-ray diagnosis of brain and spinal cord tumors in a most instructive and comprehensive way. It would be futile for me, in the time allotted, to discuss in any degree of detail this broad subject. Any one of the eight or ten angles might be the thesis of a single paper.

Within the last fifteen years the importance of the x-ray in this field has been clearly shown. I re-

call during my early experience in a large neurological service that the x-ray offered very little help in the diagnosis of brain and spinal cord tumors. I doubt that former routine procedures, which consisted chiefly of careful neurological examinations, based on a knowledge of the physiology of the nervous system, has improved sufficiently during this time to account for the improved early and accurate diagnoses now being made. There are many, particularly neurologists, who feel that in recent years we have learned to depend too much upon mechanical and laboratory means of diagnosis to the exclusion of careful history-taking and a physical examination. Particularly early in the history of neurosurgery, the demand on the part of neurosurgeons to develop mechanical means was great because of the lack of knowledge of the physiology and function of the nervous system.

Many of the procedures, such as ventriculography, encephalography and the use of iodized oil, are not carried out without a certain amount of danger to the patient, and therefore should not be resorted to until other clinical means of investigation have been exhausted. I am one of those who believes that the cerebral shock that accompanies encephalography and ventriculography must be harmful to tissues as sensitive as the nervous system. The immediate effect of both procedures can very readily get out of control of the operator. I am quite aware of the fact that every method of diagnosis and localization of tumors should be carried out before any major intracranial or intraspinal operative procedure is contemplated.

When a brain or spinal cord tumor is suspected, a careful, painstaking history and examination should be resorted to; not once, but several times. This is particularly true in the localization of spinal cord tumors, but to most physicians and patients this is a tedious procedure. To avoid this I frequently arrange my work so that this can be done the first thing in the morning when the patient is fresh, and better cooperation can be expected.

I believe it is agreed among most workers that iodized oil, if not removed by operation, may give some very distressing symptoms in later years. It has been my practice to limit its use to cases where there is shown to exist a complete spinal block as demonstrated by the water manometer and where the neurological examination fails to demonstrate the level of the tumor, as I feel the chance of an error in interpretation is too great when complete block does not exist.

I have been impressed by the frequency in which pressure atrophy of the pedicles occurs with widening of the space between the pedicles in intraspinal extramedullary new growths. Four out of my last six cases of this type showed this clearly. In three of the cases it was difficult to justify because of the paucity of signs of cord compression. One would naturally expect cord compression signs to precede the appearance of bone compression signs by some time.

Dr. William J. Bleckwenn (Madison): Dr. Camp has very excellently presented a difficult subject in a simple way. He has brought out the advances made by the roentgenologist in the localization of brain and spinal cord neoplasms. I am sure you have all been impressed with the importance of the standardization of technique to the end that our results are comparable no matter where the pictures may be taken. This should be our ultimate ambition. Many technical errors creep into the examination of x-ray pictures, particularly in head x-rays, due to a failure of proper centering, or distortion, or angulation, which make the interpretation of head films difficult and even speculative. With uniformity of the accepted methods, these technical difficulties will be overcome.

Proper study of the sella turcica and adjacent bony structures can only be made in stereoscopic films. Frequently, reported abnormalities in the sella region are actually due to the above-mentioned technical failures.

I wish to emphasize the importance of the pineal shadow. With the exception of extreme frontal lobe tumors, the pineal shadow will usually be displaced. It may be elevated, depressed, or dislodged laterally from its normal position, and give a clue as to the localization of the tumor.

With the advance of encephalography and ventriculography, we have been given even greater assistance in the accurate localization of intracranial neoplasms. Many so-called silent tumors of the brain cannot be localized even as to the side of the lesion without employing the above methods. By means of air injection, when properly employed and with proper films for interpretation, we are able to localize more than 80 per cent of our brain tumors.

Ventriculography, with its higher mortality (8 to 10 per cent), is more accurate where an obstruction to the ventricular system exists with a production of internal hydrocephalus. This procedure, however, should never be attempted by one who is not qualified to do neurosurgery, because surgery may be necessary a few hours after the air has been introduced.

Generally, encephalography has not been employed as extensively in the localization of brain tumors. At the University of Wisconsin, we have performed fifty-two encephalograms on brain tumors. In this series, we have had two deaths, both in frontal lobe neoplasms. There have been no deaths in middle fossa or posterior fossa tumors of which we have had twenty-seven.

We feel that for accurate localization in a suspected brain tumor air should be injected either by ventricular or lumbar route, regardless of the clinical accuracy of localization.

Camp and Elsberg have made a real contribution in the study of the interpedicular spaces and the laminae and the local absorption of bone around cord tumors. When these studies are combined with a careful neurological examination for the level of the lesion, and the comparative spinal fluid pressures,

I believe that we can eliminate the use of iodized oil except in cases such as described by Camp. We all know that iodized oil is definitely irritating and produces an aseptic meningitis, and, further, that unless removed, it becomes encapsulated and remains as a foreign body.

In closing, I should like to present a case of a tumor of the fourth ventricle. This diagnosis could not have been made from a ventriculogram nor from clinical examination. The diagnosis was evident in the encephalogram, and the tumor was found at operation.

General Considerations in the Treatment of Varicose Veins*

By FREDERICK L. SMITH, M. D.
Section on Postoperative Care, The Mayo Clinic, Rochester, Minnesota

THE field of treatment of varicose veins has been fairly well covered during the past few years in relation to technic, and choice of sclerosing solutions. Therefore, I will confine my remarks mainly to other aspects of the subject.

The structure of veins differs from that of arteries in that the media of veins contains relatively less elastic tissue and a relatively larger amount of smooth muscle; also the adventitia of veins is thicker than that of arteries.[1] Veins of the extremities possess valves. However, there are no valves in certain other large veins, such as those which carry blood from the cranium, lungs, liver, spleen, kidneys, spinal column and rectum. The vena cava also is without valves. The superficial veins of the extremities carry approximately a tenth of the venous blood of the limbs. The deep veins, which lie within the muscle planes and fascial coverings, the other nine tenths of the blood returning toward the heart. Communicating channels between the superficial and deep veins are relatively common in the foot, leg and thigh.

Etiology

The common causes of varicose veins, judging from a series of 429 cases studied, are (1) pregnancy, (2) occupational factors, (3) injury, (4) heredity, and (5) infections. Pregnancy increases the pressure on the large venous trunks within the abdominal cavity, causing back pressure in the veins of the extremities. Occupational factors are evidenced among salespeople in stores and among miners, teachers, farmers, machinists, and domestic help. Such persons either stand constantly in a relatively circumscribed area or lift heavy burdens continuously. Extensive injury to a vein from any cause in which the valves are affected is likely to result in varicosities. That heredity undoubtedly plays a part is evident in studying family histories, since the condition will be seen to appear in each successive generation.

Nature, in compensating for impaired function, attempts to strengthen the walls of the veins and in so doing it lays down more connective tissue than elastic muscle fibers. This results in buckling of a vein at points of greatest stress. The valves likewise undergo atrophy and are reduced to fibrous stumps. Occasionally this process involves the intima, with resultant occlusion of the lumen. Calcified infiltration, or a phlebolith, appears. The effect of this sclerotic process is to elongate the veins, owing to convolutions and sacculations of the weakened walls.

The upright position of the human being, in contradistinction to the horizontal position of quadrupeds, may explain why four-footed beasts rarely have varicose veins. Their weight is fairly equally distributed, whereas the erect position of the human being causes the weight of the column of blood of the trunk and upper extremities to exert pressure downward on the valves of the great saphenous vein. If these become disarranged, or if they are absent, downward flow through the valves is permitted. This downward flow is manifested when a patient who has large varicosities coughs or otherwise exerts sudden intra-abdominal pressure.

* Read before the meeting of the Fond du Lac County Medical Society, Fond du Lac, January 21, 1937.

After such an act, the column of blood in varicose veins of the leg rebounds.

Types of Varicosities

Types of varicosities, according to Bernsten's[2] classification, are as follows: Type 1 is represented by those veins which are uniform in diameter and which are without change of contour, except for one large dilatation, usually in the proximal portion of the vein. If a dilatation of this type appears in the groin, it may be mistaken for femoral hernia. Veins of type 2 are tortuous and their diameters vary. In veins of type 3, dilatation is uniform and there is no change of contour. Veins of type 4 are very superficial, telangiectatic venous radicals and commonly are described as "spider web" or "spider burst" varicosities.

The usual test for patency of the veins is the bimanual one, in which the fingers of one hand are placed above, on the internal saphenous vein in the thigh, and the fingers of the other hand over the varicosities in the calf of the leg. The impulse of the column of blood produced by pressure from above is easily distinguishable by the hand palpating the varicosities in the calf; this impulse is not felt if the valves between are competent. This is an important step in examination, for often the saphenous vein above the knee is not seen, and yet accounts for the varicosities below.

Conditions Often Encountered

Stasis dermatitis. This condition, occurring secondary to varicose veins, varies in extent from small, discrete areas, 2 to 3 cm. in diameter, to areas coextensive with the entire surface of the leg. The manifestation in early phases is that of local edema, pigmentation and pruritus. The more active phase is characterized by marked inflammation, with oozing and crusting, and finally persistent, chronic dermatitis extends peripherally along the course of the varicosity. In advanced cases, the surface of the skin becomes covered with diffuse petechial hemorrhages. To correct the dermatitis the extremity is elevated and wet dressings of aluminum acetate, 0.5 per cent, or of potassium permanganate, 1 to 8000, are applied. Later, plain calamine lotion is used, also as a wet dressing. As soon as the varicosities can be recognized, in such a case, they should be subjected to sclerosing treatment. After this treatment has been completed, a 3 per cent ichthyol ointment is applied and the area is covered with plain gauze, over which a white, cotton, woman's stocking is worn and a Pará gum rubber bandage (weight 50, 75 or 100) is applied. The bandage is changed at noon and is removed at bedtime. Improvement will be noticed after continuous medication and wearing of the bandages for several months.

Thrombophlebitis. This[3] is essentially an acute disease which produces varying degrees of acute and chronic venous obstruction and venous insufficiency in the affected extremity. It is extremely rare to see venous thrombosis without some phlebitis. There are four clinical forms of thrombophlebitis, as follows: (1) The local form is attributable to direct chemical, mechanical, infectious, or suppurative trauma, or occurs in abnormal veins, such as varices. (2) The hematogenic form is associated with blood dyscrasias and primary alterations in the constituents of the blood. (3) The primary form includes the idiopathic, spontaneous types and those associated with thromboangiitis obliterans. (4) The secondary form results from complications of surgical operations, childbirth, various infectious diseases, malignancy, and congestive heart failure.

Little is known about the pathogenesis of thrombophlebitis. Three factors must be considered in its development. First, there is probably some lesion of the vein, particularly of the intima. This may be a mechanical or a chemical injury, a bacterial infection of the wall of the vein, or the result of a toxin or virus which circulates in the blood. Second, the blood may have an abnormal tendency to undergo thrombosis. Third, there may be abnormal venous stasis, such as occurs in the presence of varices, heart disease, or during prolonged rest in bed. Probably all three factors are present in many cases of secondary thrombophlebitis.

Clinically, thrombophlebitis is important because of the disability during the acute stage, the danger of embolus and the tendency to subsequent development of chronic venous insufficiency of the limb. Suppurative types are dangerous and may be the source of infection of the blood stream, or pyemia. The symptoms in the acute stage depend on the situation and extent of the involvement. Thrombophlebitis of small, superficial veins may produce nothing more than some local pain and soreness, lasting for a few weeks. Involvement of the long or short saphenous veins, if extensive, may cause some edema, particularly in the region of the lower part of the leg that is drained by these veins. When the femoral or iliac veins are involved, there is usually definite swelling and congestion of the leg, with dilatation of the superficial veins, followed, in a few days, by pitting edema. At the onset, there is usually considerable pain, not only at the site of the lesion but also in more distant, congested regions. The temperature varies but is rarely more than 101° F. and chills are rare except in the presence of suppurative types of the disease. Elevation of the pulse rate may be the first symptom.

The diagnosis is not usually difficult if one remembers that thrombophlebitis is an acute disease which obstructs veins. Superficial thrombophlebitis must be distinguished from erythema nodosum, herpes, nodular syphilid and nodular tuberculid of the extremities. Its occurrence as a primary disease always should excite the suspicion that thromboangiitis obliterans is present and the arterial circulation should be carefully examined. Femoral and iliac thrombophlebitis must be distinguished from acute lymphangiitis and cellulitis of the leg. In the latter condition the leg is red rather than cyanotic; there is usually a chill at the onset, high fever, much malaise, and the swelling is brawny. Acute arterial occlusion is distinguished by the finding of a cold, pale, usually shrunken extremity, and pulsations of the peripheral arteries are absent.

If the thrombophlebitis has involved a femoral or iliac vein, it is likely to be followed by chronic venous insufficiency of the leg. This is dependent somewhat on the extent of the original thrombosis, the relative amounts of organization and absorption of the clot and the ability of the patient to develop and make use of the collateral veins. Chronic venous insufficiency is manifested at first by increasing static edema when the patient is on his feet; this tends to disappear each night during recumbency. The superficial veins remain distended or they collapse slowly when the limb is elevated above the level of the heart. Secondary varices may develop and be followed by ulceration and cellulitis. There may be pain from congestion in the muscles after physical activity. The residual swelling in a leg after thrombophlebitis should be distinguished from chronic lymphedema, which usually comes on more gradually and is likely to be more firm and indurated and less responsive to elevation. It also should be distinguished from edema of cardiac or of renal origin.

The treatment of thrombophlebitis involves only a few simple procedures. For the superficial types, rest and local application of hot packs usually will shorten the course of the disease and relieve pain. In femoral or iliac thrombophlebitis, rest is imperative. The leg should be elevated to an angle of 30 degrees and heat should be applied to the entire leg, from foot to groin. These procedures should be continued for a week after the temperature has become normal and until all pitting edema has gone and all local tenderness has subsided. Then the patient should be allowed to sit up in a chair a few days and then to resume normal activity. From the start, however, the leg should not be dependent unless an adequately heavy elastic bandage or stocking has been applied.

Ulcers. The reversed flow of the column of blood within the varicose vein produces retardation of the venous capillary circulation, resulting in lymphedema and a surcharge of catabolic products; anoxemia supervenes and interferes with nutrition of the tissues. Eczema, attended with itching and purpura, always is a forerunner of ulcer. Any irritation, cut or scratch in the region of devitalized epithelium usually sets up infection of low grade and ulcer ensues. The

site of the ulcer usually overlies a varicose vein; the ulcer appears in an area where the greatest amount of irritation occurs and is often at the juncture of a superficial and a deep communicating vein.

The highest level at which ulcers are found is the juncture of the upper and middle thirds of the leg; the most common site is the lower third of the leg and the ankle. Miners are usually affected on the leg, where rubbing by the boots occurs, whereas persons who wear shoes are likely to have ulcers on the ankles. The ulcers vary from minute abrasions of the skin in a pigmented area to deep necrotic lesions involving the subcutaneous tissues; they may be a few millimeters in diameter or they may encircle two thirds of the leg. They are usually extremely painful, and cellulitis, which always is present in varying degrees, results in a copious, offensive discharge. The local cellulitis causes occlusion of the lymphatic channels and results in brawny infiltration and elephantiasis of the distal part of the extremity. I have observed that the ulcers which are most painful are most amenable to treatment. The average ulcer of long duration should be examined for evidence of malignant degeneration, tuberculosis, syphilis, fungoidal and chemical etiology. Ulcers may occur as a result of noninflammatory conditions such as hereditary edema (Milroy's disease)[4] or edema precox or they may be the end results of inflammatory processes such as trichophytosis or migratory phlebitis involving the cutaneous vascular bed, with subsequent replacement by scar tissue.

If a patient is hospitalized and the leg is elevated, a varicose ulcer will heal without any further treatment. However, as soon as the patient walks, edema develops and the ulcer recurs. In treatment, the principle is to maintain uniform pressure to assist the superficial circulation in overcoming the edema. The area of the ulcer is covered with a small gauze pad and pressure is maintained by application of an elastoplast bandage, beginning at the base of the toes and extending upward to the knee. A window never should be cut to provide for the discharge, but as the drainage exudes through the bandage it can be washed off and a temporary dressing applied over the bandage. The bandage is left on from five days to three or four weeks, depending on the amount of edema and the size of the ulcer. Whenever there is evidence of displacement of the bandage, or the skin becomes irritated from the bandage, a change should be made. The time of healing can be approximately calculated as follows: area in square centimeters $\div 5 + 3 =$ time in weeks. The amount of healing varies from 0.57 to 1.07 sq. cm. per day.

Arteriovenous fistula. Arteriovenous communications are recognized by determination of an increased concentration of oxygen in the blood of the involved vein; increased temperature of the part; the presence of nevi, local or extending the full length of the extremity; moisture of the skin; and increased length of the extremity. The last-named sign is evident in the leg, in particular, and is evidenced by having the patient sit; then, if one leg is longer than the other, one knee will be higher than the other. Arteriovenous aneurysms which cause this disproportion usually are congenital.

In advanced cases, a "hot" ulcer, in contradistinction to the ordinary gravistatic or stasis ulcer, is found and is associated with pain and interference with nutrition of the toes. Arteriography is invaluable in locating the communications and determining what procedure to adopt to correct the anomaly. Thrills and venous pulsation are rarely observed. If there are multiple communications, and it is impracticable to resort wholly to surgical methods, the sclerosing treatment is available; satisfactory results can be accomplished when there is one or multiple communications in a small segment or when the communications are very small. Satisfactory results in two cases have been reported by Horton and me.[5]

Muscle sheath hernias. These protrusions are often mistaken for varicosities. They are single or multiple and resemble buckling of a vein beneath the skin. Their site of predilection is over the muscle planes of the leg, mostly on the lateral and posterior surface. Rarely, however, they are found on the lateral and medial surfaces of the ankle.

The differential diagnosis is easily made in that, on flexing or extending the foot, and thus putting the muscles under tension, the swelling disappears, only to reappear on relaxation. The only notice that should be taken of muscle sheath hernias is when varicosities exist in conjunction with them. Then the varicosities should be treated in the usual way.

Treatment by Injection

Even at the expense of possible later repetition, I would like to say, first, that in any case in which injection is contemplated, a general examination is essential to detect conditions which would in any way be detrimental to the patient in accomplishing the desired result.

Technic. There are reported in the medical literature as many varieties of technic of injection of varicose veins as there are varieties of a famous brand of pickles, but I shall not burden you with a description of any of them. My custom is not to employ one pet technic to the exclusion of all others. I vary the method of injection to suit the individual case. In general, however, treatment should be from above downward, in accordance with the proved fact of the reversed flow in a varicose vein. Treatment should be administered as often as is in keeping with the reactions, both local and systemic. Ligation at the sapheno-femoral junction is being used considerably more of late than formerly. I have not resorted to this measure, because satisfactory results are obtained by the use of solutions injected at the junction of the middle and upper thirds of the thigh, or higher if indications warrant. If injection is made when the patient is supine, tourniquets are applied above and below the site of injection. I have seen as pronounced varicosities develop after ligation and surgical stripping as with any other sort of treatment. If canalization occurs after injection, secondary injection usually completes the sclerosis.

Solutions. In regard to the various sclerosing agents, one should use those that give the least systemic reaction and locally produce chemical endophlebitis which will destroy the endothelial lining of the vein.

Generally speaking, the salts of the fatty acids are least likely to produce slough if they are accidentally spilled into the perivascular tissue. On rare occasions a patient will complain, after injection of sodium morrhuate, of a "fishy" taste in the mouth or of a slight sensation of nausea and headache coming on in about two hours and lasting for a time. On close inquiry one will elicit a history of chronic headache in most instances. Pain, characterized by sharp, catchy "cricks in the back," lasting from a few seconds to two or three minutes, suggests stimulation of the sensory branches of the sacrolumbar plexus. Cardiovascular shock, with momentary drop in blood pressure, is most frequently observed after the use of quinine and urethane. A choking sensation, similar to that of being gassed, has been experienced after administration of sodium ricinoleate, and cramps in the legs have resulted from the use of sugar, salt and salicylate solutions. As for measures of relief: for an ordinary faint, exposure to fresh air, a few whiffs of aromatic spirits of ammonia, letting the head hang down or supporting the patient in a sitting position usually is sufficient. If profound cardiovascular shock is threatened, hypodermic injection of caffeine and sodium benzoate is given. If the patients feel weak they usually ask to lie down but they should be kept in a sitting position supported by assistants; otherwise the pressure is lowered in the inferior vena cava and flow of blood from the treated vein into the general system is rendered more possible. The endophlebitis and perivenitis which result from the various sclerosing solutions are, in general, about the same. Some individuals respond much more quickly than others, however. In our experience at The Mayo Clinic, no drug can be used in a large number of cases without indiosyncrasy developing in some case, taking a form such as dermatitis or angioneurotic edema. We have not experienced a fatality or extremely alarming situation immediately associated with the injections, however.

Complications resulting from treatment. Occasionally the patient will feel "grippy" and will have a chill, the temperature will rise to 102° F. and the leukocyte count will

rise to 10,000 to 15,000 per cubic millimeter of blood. Such patients should be kept quiet, the treated part elevated and hot packs applied. Then the symptoms usually will subside in a few hours.

Ulcers may result from perivascular infiltration of the sclerosing solution. If slough occurs, excision or curetting the necrosed pocket and application of some mild, antiseptic dressing will suffice. The length of time for healing depends on the extent of the damage to tissue. Pulmonary infarcts are the most alarming complication. In the course of treatment, if a patient complains of pleuritic pain, he should be hospitalized immediately. The thorax on the affected side should be strapped, the patient should be placed in the Fowler position and, with the least sign of cyanosis, he should be put in a chamber in an atmosphere of 50 per cent oxygen. Morphine should be given to slow the respiration to ten to twelve per minute and narcosis with sodium amytal or pentobarbital sodium should be continued for a period depending on the condition of the patient—perhaps a few days to two weeks. Roentgenograms of the thorax may not reveal shadows of infarction until several days have passed. At the clinic we have had seven embolic infarcts among 2,347 patients without a death. All patients have recovered and roentgenographic evidence of persisting pulmonary affection has not been found.

Recurrence. The question that is usually asked at the time of examination is, "What is the probability of recurrence, or of new veins forming?" My answer is that several factors are to be considered. Among the more important of these, are the following: the presence or absence of an inherited tendency to varicose veins, with deficiency of supporting tissues in the wall of the vein; the likelihood, or not, of repeated pregnancies; the presence or absence of thrombophlebitis; the likelihood, or not, of injuries, and most important of all, is lack of completeness of the sclerosis that is brought about to eradicate the varicose involvement. If an hereditary tendency is present, one cannot promise that new veins will not appear but the patient can be assured that by taking care of the existing varicosities there is less likelihood that any subsequent involvement will be as extensive as the first. Repeated pregnancies throw an undue burden on the superficial venous system and any weakness in the venous walls tends to cause dilatation and finally new varicosities will develop. Thrombophlebitis and injuries are commonly known to produce varicose veins. Completeness of sclerosis depends on the reaction of the veins to the sclerosing solution, on the primary source of the varicose veins, and on the extent of sclerosis accomplished in the system fed by the source, including communications between the superficial and the deep venous systems.

In answer to a questionnaire sent out in 1933, 1,074 of the patients treated in a five-year period replied. The answers revealed that the condition of 89 per cent was definitely improved. To the question as to whether varicosities were present when the questionnaire was being answered, 1,015 replies were received; of these 43.5 per cent were affirmative. During the first two and a half years we had used different technic and a different sclerosing solution than we employed later. Furthermore, many of the patients were women who had been pregnant since the first treatment. Thus, eliminating all subsequent causative factors, we arrived at the conclusion that 15 to 20 per cent of patients will have recurrences.

Contraindications. Complete occlusion of the deep circulation is a contraindication to sclerosing treatment. It is a rare condition, much more so than the textbooks would lead one to believe. I have seen not to exceed ten cases of complete, deep occlusion. The diagnosis is not difficult. On questioning, the patients usually will disclose that bandaging of the legs causes discomfort and the examiner can confirm the statement by applying an Esmarch bandage from the base of the toes to the knee. This will restrict the superficial circulation and it will be impossible for the patient to wear the bandage with comfort more than a half hour. If after several hours the patient feels no discomfort, the surgeon can be sure that the deep femoral vein is open. This is the simplest and most efficient method of diagnosis. Ac-

tive infection existing anywhere in the body should be eliminated before sclerosing treatment is begun. Hyperthyroidism, with rapid pulse and evidence of general toxemia, is a contraindication for sclerosing treatment. Inasmuch as general surgery may be followed by complications such as pulmonary embolism or thrombophlebitis, it is not advisable to begin treatment for varicosities until after the postoperative period in which these complications may occur. Cardiac and cardiorenal dysfunction are indications for withholding sclerosing treatment until normal function has been restored. Acute, deep thrombophlebitis may permanently occlude the deep venous system and this precludes the possibility of immediate resort to sclerosing treatment of superficial varicosities. Conservative treatment can be instituted when partial occlusion exists. Inspection of the abdominal wall and pubic region will reveal dilated veins when occlusion is above the femoral-saphenous juncture. Patients who give histories of unusual sensitiveness of the legs and feet to lowered temperatures, and of intermittent pain, may have functional or organic arterial disease and are by no means subjects for injection. The edema from such treatment would have a tendency to compress further the already diminished arterioles. Skeletal deformity of the feet is occasionally a source of complaint attributed to varicose veins and orthopedic measures should be instituted. Diabetic patients who are in a condition of imbalance or who possibly have arteriosclerosis are not good subjects for injection.

Summary

The results of treatment for varicose veins are in the main satisfactory. The condition recurs, to be sure, in a certain percentage of cases, owing to definite causes. Among these causes are an inherited tendency to varicosities, manifesting itself either in weak venous walls, absence of valves, or both; canalization or refilling of previously treated veins, and subsequent infections, injuries, pregnancies, and so forth. Whatever the causes of recurrence, the condition is rarely as bad as it was originally. A second course of treatment is often necessary, and occasionally a third, at intervals of six months to two years.

Mortality statistics, as reported by Kilbourne[6] and others, reveal that the percentage of deaths resulting from the sclerosing treatment of varicose veins is lower than that resulting from surgical operation. The method of treatment obviates the necessity of hospitalization, thereby materially reducing the cost to the patient.

REFERENCES

1. Jordan, H. E.: A Textbook of Histology, third edition, New York: D. Appleton and Company, 1924, p. 194.
2. Cooper, W. M.. The Treatment of Varicose Veins. A study based upon series of more than 35,000 injections of various sclerosing solutions given in 3,164 cases, and 293 cases of extensive and recurrent varicose veins treated by preliminary ambulatory ligation and subsequent injections. Ann. Surg., **99**:799-805 (May) 1934.
3. Barker, N. W.: Diseases of the Veins. M. Clin. North America, **19**:535-543 (Sept.) 1935.
4. Milroy, W. F.: Chronic Hereditary Edema; Milroy's Disease. J.A.M.A., **91**:1172-1175 (Oct. 20) 1928.
5. Horton, B. T., and Smith, F. L.: Unpublished data.
6. Kilbourne, N. J.: Treatment of Varicose Veins of Legs; Considerations of Safety. J.A.M.A., **92**:1320-1324 (Apr. 20) 1929.

Fracture of the Carpal Scaphoid*

By F. H. KUEGLE, M. D.
Janesville

MEDICAL opinion concerning the incidence and treatment of fracture of the carpal bones has undergone considerable change within the memory of all older physicians. The 1903 issue of a textbook on "The Treatment of Fractures" by Scudder, which I studied as a medical student, states that simple fracture of the carpal bones is unusual and is associated with other injuries. Nothing could be farther from the truth as evidenced by the fact that I have seen two cases of uncomplicated fracture of the carpal scaphoid during the last year. Indeed this

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

fracture is considered so common by me that no injury of the wrist escapes a careful examination to determine the integrity of this bone. Not only is this highly important, but imperative, since I know of no fracture involving a joint which results in comparable impairment of function if proper treatment is not instituted promptly after injury.

Formerly, injuries of the carpal bones were diagnosed as sprains and so treated. Needless to say individuals so treated were thereafter subject to recurrent attacks of wrist pain and suffered permanent impairment of the function of the joint. In the 1911 revised edition by Scudder, the author states, "Fractures of the carpal scaphoid may be divided into the fresh or acute and old or chronic cases." Today such a classification is antiquated; yet, in spite of this fact, observation leads me to suspect that many cases of fractured scaphoid still are improperly diagnosed and treated as sprains. This is inexcusable as the fracture is readily diagnosed, even with a poor roentgenogram from a photographic standpoint, if one recognizes its potentially frequent incidence and looks for it.

Several facts must be borne in mind concerning the carpal scaphoid. To all intents and purposes this structure is a sesamoid bone since it is entirely devoid of periosteum and instead is covered with cartilage. Moreover, its entire nourishment is provided by the one nutrient artery which supplies it with blood; hence, when the bone is fractured the proximal fragment receives no nourishment. Accordingly healing is by fibrous union only and slow just as in the case of fracture of the patella.

In the treatment of Colles' fracture, the splints are usually removed at the end of the third week and passive movements are inaugurated. If a fractured carpal scaphoid is similarly treated, a bad end result will almost invariably ensue. It should be remembered that the fragments in fracture of the carpal scaphoid are seldom displaced at the time of injury and that this complication can be avoided by merely immobilizing the wrist in a plaster cast in a position of hyperextension. The tips of the fingers should be left free and the patient specifically instructed to move these frequently each day. The next important fact to remember is that immobilization should be continued not for weeks but for months. Dr. Burns of the University of Wisconsin claims that these fractures generally will require six months of rest to insure a maximum restoration of function.

In those cases in which early diagnosis is not made and proper treatment instituted, the proximal fragment is apt to become displaced. If this occurs either one or both fragments may require surgical excision. Albee states that removal of one fragment, or even the whole bone, is not incompatible with good wrist function. However, if this procedure can be prevented, it seems to me that the end result will be better and more satisfactory both to the patient and the attending physician.

Regional Enteritis; Report of Five Cases

By ARNOLD S. JACKSON, M. D.
Jackson Clinic, Madison

IN 1932 Crohn, Ginzburg, and Oppenheimer reported fourteen cases of what they considered a distinct clinical and pathological entity of the ileum. They considered their cases as separate from the group of so-called "benign granulomas" previously reported in the medical literature. The latter constituted all chronic inflammatory lesions of both the large and small intestine whose etiology was unknown.

At present there exists some difference of opinion whether or not the type of lesion described by Crohn and his associates may be considered as apart from the other lesions of this group. It has been shown that the term ileitis used by these authors is incorrect, since an identical pathological process occurs in other parts of the small intestine. Moreover, in a recent article these authors have admitted that their original conception

of the location of the disease as occurring only in the ileum was incorrect and they now believe it may even involve the large bowel.

Regardless of whether Crohn and his workers are correct in their contentions, they have made a distinct contribution to medical science by focusing attention to this often-overlooked disease. They have so popularized the subject that within a period of five years over two hundred cases have been reported in the American literature.

The question has been asked: Is this disease actually a new clinical entity, or is it one that has merely escaped the eyes of the roentgenologist, clinicians, pathologists and surgeons. While x-ray studies and physical examinations might not have shown the disease in years gone by, it could hardly have failed detection at the operating table or at postmortem examination. In fact one of the cases in this series was resected by my brother, Reginald, twenty-seven years ago and again in 1927. We encountered a very extensive case involving the duodenum and jejunum. This entire segment of bowel appeared like a thick, rubber hose, and, due to the great extent of the lesion and because so little was known concerning the disease, resection was considered inadvisable. This patient died within a year. In light of more recent knowledge, we now recognize this case as one, perhaps, best termed regional enteritis.

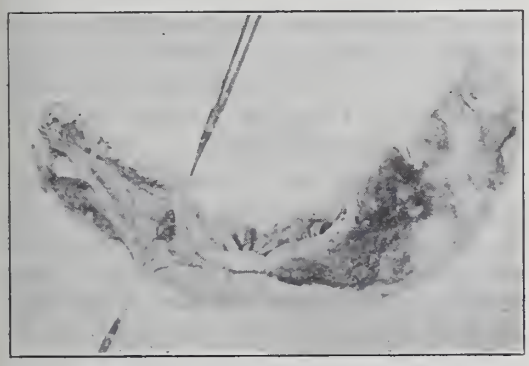


Fig. 1. The stenotic stage of regional enteritis showing nearly complete obliteration of the lumen and greatly distended internal wall.

The typical signs and symptoms of this disease have been clearly described by Crohn and his associates, but for those not familiar with regional enteritis its important characteristics are briefly reiterated. Since regional enteritis may so closely simulate appendicitis, and since so many cases have had appendectomy with failure to relieve symptoms, every physician should be familiar with the classical picture of the disease. This picture represents four distinct phases which may be grouped as follows:

Four Phases

Symptoms suggestive of acute intra-abdominal inflammation and especially appendicitis characterizes this group. Pain and tenderness in the right lower quadrant, accompanied by cramps, fever, and leukocytosis occurs. A palpable mass may be found. At operation the appendix does not appear to be involved, but one or more segments of the intestine and especially the terminal ileum appeared to be enlarged, thickened, edematous and reddened. Perhaps the most striking appearance on opening the abdomen of the patient in case 3 of this series were some enormous mesenteric glands in the region of the ileum. These glands are a typical finding in this stage of the disease and in this respect resemble the glands of mesenteric lymphadenitis except that the latter are smaller. They suggest the possibility that these two diseases of unknown etiology may be due to a low-grade infection of the lymphatic system.

The symptoms of the second phase of the disease may simulate those of ulcerative colitis, with attacks of diarrhea and crampy abdominal pain. In fact these cases may go unrecognized for months or years all the while consuming large amounts of bismuth and bland foods. In some cases there may be loss of blood with resultant anemia, as well as malaise, fever and weight loss.

The ulcerative phase is followed by a stenotic process. As a result of the extreme thickening of the intestinal wall, the lumen of the bowel gradually becomes constricted leading to signs and symptoms of partial intestinal obstruction. Shortly after eating, patients may suffer from severe abdominal cramps with attacks of nausea and even vomiting. The pain may be so severe as to re-

quire morphine. Visible peristalsis may be observed.

In the last stage of regional enteritis, multiple fistulas develop that may either open internally or externally through the abdominal wall. Merely excising this fistulous tract does not effect a cure, since it is necessary to resect the involved portion of bowel.

While the disease may occur in either sex and at any age, the typical cases I have observed have been in young or middle-aged adults.

Roentgenological studies are invaluable in the diagnosis of this disease, and the roentgenologists, notably Kantor, deserve credit for their assistance in unmasking this strangely overlooked lesion. Kantor has called attention to the most characteristic roentgenological findings, namely, the "string sign," a fine line of barium the result of a greatly constricted lumen. X-ray studies may also reveal a filling defect just proximal to the cecum. There may be an abnormality in contour of the last filled loop of ileum, and a dilatation just proximal to the lesion may occur in the intestinal loops.

As previously stated, the etiology of regional enteritis is unknown; neither cultures, blood studies nor the research laboratory has shown the cause. It has been suggested that it may be related to dysentery or that a fungus is responsible. Microscopic studies show acute, subacute or chronic inflammatory changes with giant epithelial cells present in the later stages.

The gross pathological appearance of the involved bowel depends upon the stage of the disease. It may be edematous and hyperemic in the acute stage or greatly thickened and hard like a hose as in the later stages. The mesentery, besides containing enlarged glands, may be thickened with a tendency to bleed. The process may involve one or more segments of bowel.

Successful results in the alleviation of regional enteritis depend upon early recognition and the institution of proper treatment. Considerable evidence has accumulated to show that, if recognized in the first stage, merely sidetracking the loop of diseased intestine may effect a cure.

When the patient in case 3, in this series, came to operation, he was in an extremely emaciated condition weighing only eighty pounds. Three months before he had been operated upon elsewhere for appendicitis. His attacks of abdominal cramps had persisted and further exploration was considered advisable in view of roentgenological and clinical findings suggesting regional enteritis. This tentative diagnosis was confirmed at operation, but, on account of the patient's poor condition, I did not consider a resection advisable and merely anastomosed a section of the healthy ileum above the lesion with the ascending colon. Within a year's time, the patient has gained fifty pounds, eats whatever he desires, and is free from symptoms.

Recently, I presented this subject before the Western Surgical Society reporting four cases from the Jackson Clinic, sixty-four from a survey of the members of the society and 114 which have now appeared in the American literature since 1932*. In a study of these cases, I was impressed by the number in which favorable response followed conservative ileocolostomy.

If the disease has reached an advanced stage, however, such as the stenosing phase, only resection will suffice and this procedure may have to be repeated as in one of my brother's cases. However, even in the later phases of regional enteritis, it may be advisable to perform conservative surgery by one or more stages. It is only fair to state that the sidetracking procedure has not always proved satisfactory even in the early stage of the disease, and that the process has in some instances progressed requiring further and more radical measures.

Conclusion

In conclusion, I should like to emphasize the following points:

While regional enteritis was recognized as a distinct entity but five years ago, there have now been reported 219 cases in this country.

Although its etiology is obscure, early recognition with proper surgical measures

* Presented before the Western Surgical Society, Kansas City, Missouri, December 11, 1936.

results in prompt relief of symptoms and probable cure.

The signs and symptoms may closely simulate acute appendicitis, ulcerative colitis, partial intestinal obstruction, and ileocecal tuberculosis depending upon the stage of the disease.

The majority of cases reported have previously had appendectomy performed with failure to relieve symptoms. This emphasizes the importance of a careful diagnosis in every abdominal case coming to surgery and imposes upon the surgeon the necessity of a thorough abdominal exploration when conditions so indicate.

Roentgenological findings are characteristic and an invaluable aid to diagnosis.

The type of operation to be performed depends upon the individual case.

For the presentation of the following case reports, I am indebted to Drs. Harold Marsh and J. Newton Sisk for their aid in diagnosis, and to my brother, Reginald, for the cases on his service.

Case Reports

Case 1. Female. Age, fifty-six.

When twenty-nine years old, she had several attacks of right lower abdominal pain with vomiting and diarrhea. Exploratory operation performed by R. H. Jackson showed appendix not acutely diseased. Terminal ileum was thickened and edematous, but was not resected. This now appears to have been the first stage of a regional enteritis.

The patient continued to experience attacks of abdominal cramps and vomiting at frequent intervals until 1922. She was free from pain until 1929 when the attacks of pain became severe enough to require morphine. Visible peristalsis indicated a probable chronic intestinal obstruction and operation was advised. The terminal two feet of ileum and the cecum were found to be very thick-walled and leathery with enlarged mesenteric glands. All the diseased bowel was resected. For the next five years, the patient remained well, then she suffered a recurrence of the same symptoms.

Roentgenological studies revealed a loop of ileum proximal to the anastomosis with the ascending colon with a lumen reduced to 1 cm. or less in diameter. Moderate dilatation appeared proximal to the contraction. The lesion was diagnosed as an inflammatory infiltration in the wall of a loop of distal ileum and operation was again advised. The last three feet of ileum was found to be in a similar state as noted in the second operation. Over five feet of terminal ileum, the ascending, and one half of the transverse colon were resected; side-to-side anastomosis was done, and the patient has remained free of symptoms to date.

Case 2. Male. Age, fifty-seven.

This patient, operated on by my brother and myself in 1927, first aroused my interest in this subject. For several months this man had been growing weaker because of marked loss of weight, the result of spells of severe abdominal pain accompanied by vomiting and diarrhea. Fever of 100° to 101° occurred with the attacks, and secondary anemia was noted.

Exploratory operation revealed a similar condition to that observed in case 1, except that the jejunum and even the duodenum were involved. Again large mesenteric glands were seen. The patient survived a year.

Case 3. Male. Age, twenty-six.

At the age of twenty-six the patient for several months complained of attacks of abdominal cramps shortly after eating. Appendectomy had been performed elsewhere without relieving symptoms. In the meantime, the patient had lost weight steadily

Fig. 2. X-ray of case 5 showing typical string sign.

until he was in an emaciated state. Accompanying the attacks of abdominal cramps were spells of diarrhea. A small mass was palpable in the right lower quadrant. X-ray examination revealed a typical "string sign" appearance of the terminal ileum with retention proximal to the defect. The clinical

(Continued on page 686)

THE WISCONSIN MEDICAL JOURNAL

The Editorial Board

GEORGE H. EWELL, Madison F. GREGORY CONNELL, Oshkosh S. J. SEEGER, Milwaukee

Editorial Staff

GEORGE H. EWELL, Madison, Acting Medical Editor MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

A. W. ROGERS_____Oconomowoc
FRANK W. POPE_____Racine
JOSEPH DEAN_____Madison
W. CUNNINGHAM_____Platteville
A. H. HEIDNER_____West Bend
S. E. GAVIN_____Fond du Lac
H. A. JEGI_____Galesville
G. R. DUER_____Marinette
J. W. LAMBERT_____Antigo
JOSEPH F. SMITH_____Wausau
F. E. BUTLER_____Menomonie
F. G. JOHNSON_____Iron River
JOS. LETTENBERGER_Milwaukee

Annual Subscription_____Three Dollars-Fifty Cents Single Copies_____Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI AUGUST, 1937 Number 8

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

"His Own Garden"

IT IS not too late for the general practitioner of medicine to recover that neglected phase of his practice which he has allowed the public health officials to take away from him. No one is better qualified to practice preventive medicine than the family physician. When he delivers the infant he has the most intimate and confidential relationship with the family that is ever his privilege to obtain. If he will then evince a sincere interest in the development of this infant by arranging for periodic examinations, by providing an immunization program for the individual infant and the particular family, he may maintain that much cherished and most desirable position of family adviser.

It is the family doctor who first learns about the sporadic cases of infectious disease in his community. He is the first to observe the increasing virulence and spread of disease before it becomes epidemic. Who is then better qualified to advise the family concerning the necessary precautions and the proper measures for each member. The present accepted immunization procedures—against smallpox, diphtheria, whooping cough, typhoid fever—were all developed by practicing physicians. The most effective diagnostic procedure for the detection of early tuberculosis was developed by a practicing physician. In spite of the fact that these measures are the common knowledge of most physicians and that the indications and proper time for their use should always be determined for each particular individual by the family adviser, the practitioners of medicine have allowed these measures to slip out of their hands. The enterprising, aggressive enthusiasts of the health and welfare organizations have appropriated these measures because the door has been left open. Unhampered by restrictions as to ethics or publicity, they have rapidly enlarged their activities until they now invade the home to usurp the functions of the private family physician. In some communities the health officer now brazenly sends his nurse or some other unqualified representative to pass upon the diagnosis of the private physician who has been watching the disease from its onset.

So-called "specialists" are sent around to communities to hold clinics and consultations on the private patients of the family doctor. Eventually the family doctor must review the entire program for each patient and probably check up on the procedures fol-

NINETY-SIXTH ANNIVERSARY MEETING

Milwaukee Auditorium, Milwaukee :-: September 15, 16, 17, 1937

lowed by nurses or inexperienced "specialists." Who is qualified to determine whether tonsils are to be removed—the young medico who looks into the throat or the doctor who has delivered the infant and has treated him for any disease he may have had? If, and when, there is any follow-up to the repeated "examinations," any actual attempt to correct the deformities or disease conditions found, it is the family doctor who must carry out the necessary therapeutic measures. If the family physician would retain his position of advantage as family adviser, he may eliminate the bureaucratic waste of the usually perfunctory special clinics, immunizations, tests, round-ups, etc., by leaving no patients available. He may still supersede the radio broadcaster, the newswriter, or the political propagandist by providing reliable and accurate information concerning recent scientific developments for his patients directly and first hand. The public would prefer to consult the family doctor first or at least finally concerning new developments. Let the general practitioner put away the scalpel and the dreams of specializing to practice preventive medicine in his own fertile garden. M. G. P.

The House of Delegates

THE most important legislative body of the State Medical Society is its House of Delegates. While the Council holds the power of the House in the interim between the annual sessions, the Council is properly reluctant to exercise its power as affects major policies of the Society except in times of emergencies, where lack of decision imperils the joint interest of the public and physicians.

In recent years the importance of the business transacted by the House has called for increasing hours for their deliberation. This year the hours are again extended, and the House will be called into session at four o'clock, Tuesday afternoon, September 14, in order to provide for a full discussion in executive session.

The phrase "changing conditions" has become trite but the facts remain. Members can do their Society a great favor by suggesting to their own delegate or alternate pertinent thoughts and providing factual information on the many important problems that confront the profession. Such aid enables the delegate, in turn, to participate more readily in the House deliberations and perhaps to offer a suggestion upon which may be based future broad policies of the whole Society.

Official Reports

IN ANOTHER section of this Journal will be found in brief form the reports of the officers and committees of our State Medical Society covering their activities since the last annual meeting. These reports are deserving of careful reading by each of the twenty-four hundred members of our Society.

In view of the limited staff of the central office and the fact that during six months of the year tremendous demands were made upon the Society by reason of important bills in the legislature, it is to the very great credit of the committees that they were able to do such forward-looking work. We are happy to note that despite the many and grave collateral problems that have been raised during the last year, the Society has not held in abeyance its work in the field of postgraduate education, but on the contrary has taken significant steps forward.

We are pleased to read in these reports of the large amount of effort expended, and success reported, in formulating public health programs best designed to accomplish permanent progress. In this field of planning lies the opportunity for the most constructive and truly public health service which can be rendered by organized medicine. We compliment the committees on their reports which plainly evidence this leadership.

.... THE PRESIDENT'S PAGE ....

Within a Few Weeks

ALMOST before we realize it, in fact within a few weeks, the ninety-sixth anniversary meeting of the State Medical Society of Wisconsin will be held in Milwaukee, September 14 to 17, inclusive. This, will be, and should be, I believe, the greatest meeting ever held by our State Society. It is the first meeting for which the program has been arranged by the newly created Council on Scientific Work. This Council consists of Dr. W. S. Middleton, Madison, chairman, Dr. James A. Evans, La Crosse, Dr. Eben J. Carey, Milwaukee, Dr. H. A. Sincock, Superior, and Dr. George W. Krahn, Oconto Falls. The personnel of this council alone assures an exceptional program in every respect, and if you will analyze the program carefully, you will see, without question, that it is of the greatest value and interest to the greatest number of members that has ever been arranged. It will be difficult, indeed, to miss any number on the program.

The scientific exhibits this year will be more numerous and more instructive than ever, and the program is arranged so that time will be permitted to study these various exhibits.

An innovation of great importance this year will be an exhibit for the public, called the *Hall of Health.* This exhibit was conceived and developed by Dr. Eben Carey, who, as we all know, was responsible for the wonderful exhibit at the Century of Progress Exposition in Chicago. From the preliminary announcements it is now quite evident that this will be of even greater interest than the exhibit at the Century of Progress.

Dr. Upham, president of the American Medical Association, will honor us with his presence on our scientific program, and will also give a few words of greeting at the annual banquet. Dr. Logan Clendening, Kansas City, Missouri, guest speaker of the evening at the annual banquet, is a forceful orator, as well as one of the keenest wits in the profession. This assures us of an unusually interesting and entertaining evening.

It seems to me that this year of all years, after the threats and experiences of the past several months, there should be a yearning on the part of every member to get together at this annual meeting, and a desire to talk over with each other the various experiences that we have had.

Make your plans to attend now,—let nothing interfere with your attendance.

Dr. Osler, in one of his essays telling of the many advantages in the practice of medicine, said that he had the greatest admiration for men in all branches of medicine. He enjoyed to the fullest extent his own line of practice, but he admired and envied all physicians in any line of practice. There was only one type of physician for which he was extremely sorry, and that had his sincere sympathy, and that was the type of fellow who was too busy to attend the meetings of his State Society. *Don't join up with this group.*

S. E. Gavin

The Woman's Auxiliary

President—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
President-Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior
Hygeia Chairman—
Mrs. H. H. Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

Plans Announced—Invitation Extended Ninth Annual Meeting of Auxiliary at Milwaukee

THE officers, directors and members of the Woman's Auxiliary to The Medical Society of Milwaukee County are happy to have this opportunity to extend a most cordial invitation to the wives, mothers, daughters, and sisters of every members of the State Medical Society of Wisconsin to attend the ninth annual meeting of the Woman's Auxiliary to the State Medical Society which will be held in Milwaukee, September 14 to 17.

Plans are being made for your entertainment and pleasure. Whether you are a member of a county auxiliary or not, we hope to make your visit to Milwaukee during the annual state meeting a happy one. Our entertainments are being planned with one idea in mind, and that is to provide enjoyment and pleasure for everyone. Remind your husband today of the dates of the annual meeting and place them on his calendar as well as your own, so that he will plan to attend the meeting of State Medical Society during the time that you are enjoying yourself at the convention of the Woman's Auxiliary to the State Medical Society of Wisconsin.

Mrs. C. A. Harper, Madison, President State Auxiliary

Mrs. Harold J. Cannon, general chairman of the convention, and her committee chairmen have had many meetings to plan for your pleasure and entertainment and each event is planned with diversified entertainment. The Schroeder Hotel will be our headquarters with registration at the north end of the lounge on the lobby floor. The registration desk will open at one p. m., Tuesday, September 14, and all visitors and members who are in Milwaukee on that date are urged to register Tuesday and buy their tickets early in order to avoid confusion for those wishing to register later.

Preliminary Program of the Auxiliary

Place: Milwaukee
Date: September 14, 15, 16.
Headquarters: Schroeder Hotel
Registration: Lobby Floor

TUESDAY, SEPTEMBER 14, 1937

P. M.

6:30 Executive Board Dinner—University Club
Executive Board Meeting following the dinner
Mrs. Cornelius Harper, president, presiding

WEDNESDAY, SEPTEMBER 15, 1937

A. M.

10:00 General Meeting—Banquet Room, fifth floor, Schroeder Hotel
Mrs. Cornelius Harper, president, presiding
Address of Welcome—Mrs. Eben J. Carey—president, Woman's Auxiliary to The Medical Society of Milwaukee County
Response—Mrs. F. J. Pfeifer, president-elect, Woman's Auxiliary to the Waupaca County Medical Society

P. M.

1:00 Luncheon and Style Show—Wisconsin Club
3:30 Tour of Public Health Exhibit—Milwaukee Auditorium
7:00 Buffet Supper followed by entertainment and Bank Night—Banquet Room, fifth floor, Schroeder Hotel

THURSDAY, SEPTEMBER 16, 1937

A. M.

10:00 General Meeting—Banquet Room, fifth floor, Schroeder Hotel
Mrs. Cornelius Harper, president, presiding
Speaker—Dr. J. H. J. Upham, Columbus, Ohio, president, American Medical Ass'n.
11:30 Post-Convention Board Meeting—fifth floor, Schroeder Hotel
Mrs. Oscar Friske, presiding
(All county auxiliary presidents and presidents-elect are urged to be present)

Mrs. Oscar Friske, Beloit, President-Elect, State Auxiliary

P. M.

1:00 Luncheon and Bridge Party—Blue Mound Country Club
Both auction and contract will be played
Table and door prizes
6:45 Annual Dinner and Dance—Crystall Ballroom—fifth floor—Schroeder Hotel

Society Proceedings

La Crosse

The La Crosse County Medical Society held its last meeting of the season on June 23. Dr. William J. Bleckwenn of the department of neurology of the University of Wisconsin was the guest speaker. He gave an illustrated talk on "Treatment and Complications of Brain Injury" and also on "Treatment of Barbituric Acid Poisoning with Picrotoxin." Accompanying the speaker and leaders in the discussion were Dr. Eben J. Carey, dean of Marquette University School of Medicine; Colonel William McKillip, and Major Frank Matlak. The meeting and discussion were of unusual interest to all of the rather large number attending.

Winnebago

The annual picnic of the Winnebago County Medical Society was held at Dr. H. J. Haubrick's home on Lake Butte des Morts on Saturday afternoon and evening, July 10. A brief business meeting was held in the evening, followed by a card game and refreshments.

Ninth Councilor District

The summer meeting of the Ninth Councilor District Medical Society was held on Thursday evening, July 8, at the Hotel Witter in Wisconsin Rapids, beginning with a six o'clock dinner. Mr. J. G. Crownhart, secretary of the State Medical Society, summarized the bills introduced at the last session of the legislature affecting the practice of medicine. The presentation of papers by Dr. C. F. Broderick, Nekoosa, and Dr. L. C. Pomainville, Wisconsin Rapids, was postponed until a subsequent meeting to permit an entire evening's discussion of medical economics.

Tri-County Medical Society

The Tri-County Medical Society, made up of members of the State Medical Society from Trempealeau, Jackson, and Buffalo Counties, held a meeting at the clubhouse at Whitehall, Thursday evening, June 24. The meeting followed a chicken dinner at the City Restaurant. Seventeen members were present.

Dr. N. S. Simons, eye, ear, nose, and throat specialist of the MacCornack Clinic, Whitehall, was the speaker of the evening. His topic was "Chronic Sinus Infection."

News Items and Personals

The twenty-second annual session of the American College of Physicians will be held in New York City, with headquarters at the Waldorf–Astoria Hotel, April 4–8, 1938.

Dr. James H. Means, of Boston, is president of the College, and will have charge of the program of general scientific sessions. Dr. James Alexander Miller, of New York City, has been appointed general chairman of the session, and will be in charge of the program of clinics and demonstrations in the hospitals and medical schools and of the program of round-table discussions to be conducted at headquarters.

—△—

Dr. James M. Sullivan, formerly of Prairie du Chien, has located in Madison where he has been appointed to the staff of the Madison General Hospital. Doctor Sullivan recently completed a postgraduate course in surgery for his master's degree at the University of Pennsylvania.

—△—

Dr. John E. Schein, school physician at Oshkosh, has been reelected to that position for 1937–1938.

—△—

Dr. G. R. Reay, La Crosse, has been promoted from lieutenant colonel to colonel in the medical reserves of the United States army.

—△—

Dr. and Mrs. J. K. Trumbo have returned to their home in Wausau from a European trip where Doctor Trumbo studied at the University of Vienna.

—△—

Dr. T. H. Nammacher, Oconomowoc, has announced that Dr. W. D. James has been associated with him since July 6. Doctor James was graduated from the University of Wisconsin School of Medicine and has completed a year's internship and year's residency at the Milwaukee County Hospital.

Members of the State Medical Society of Wisconsin in the northeastern portion of the State are invited by Dr. C. A. Cooper, secretary of the Houghton County Medical Society, Hancock, Michigan, to attend the fortieth annual meeting of the Upper Peninsula Medical Society at Houghton, Michigan, on August 19 and 20, 1937. Hotel reservations can be made through Dr. L. S. Leo of the Arrangements Committee, Houghton, Michigan.

—△—

Dr. H. H. Fechtner, Wausau, has resigned from the position of public health physician of Marathon County to return to private practice. His resignation took effect July 1.

—△—

Dr. H. H. Christofferson of Colby has been appointed to the State Board of Medical Examiners by Governor La Follette. Doctor Christofferson succeeds Dr. B. E. McGonigle of Ableman for the term ending July 1, 1941.

—△—

Dr. Frank O. Hunt, Fall River, was honored on his seventieth birthday on Sunday, June 27, by 1,200 of his patients. He also celebrated the anniversary of his forty-seventh year in the practice of medicine. The patients, who came from many states including New York and Washington, presented Doctor Hunt with a gold watch.

—△—

Doctors F. T. McHugh, C. N. Hatleberg, and W. C. Henske, all of Chippewa Falls, have been appointed physicians under the United States Compensation Act. This position was formerly filled by the late Dr. J. D. McRae.

—△—

Dr. and Mrs. E. A. Lapham, Rib Lake, left August 1 for New York City, where they sailed for Europe. They expect to spend two months touring foreign countries.

At the meeting of the American Medical Association at Atlantic City, Dr. Hans H. Reese, Madison, was elected a member of the executive committee of the Section on Nervous and Mental Diseases, and Dr. Harry R. Foerster, Milwaukee, was elected a member of the executive committee of the Section on Dermatology and Syphilology.

The silver medal for an outstanding scientific exhibit, class 1, of individual investigation, judged on the basis of originality and excellence of presentation, was awarded to Dr. Eben J. Carey, dean of Marquette University School of Medicine, for an exhibit illustrating original investigation on intrinsic wave mechanics of the nervous and muscular systems.

—△—

Dr. S. N. Franklin of Milwaukee, who has been engaged to serve with the eighth American medical unit to care for wounded behind the Loyalist lines, sailed on June 30 on the Aquitania for Spain. He will serve with his son, Zalman, a graduate student in agricultural bacteriology of the University of Wisconsin. In Doctor Franklin's absence his practice will be taken care of by his son-in-law, Dr. S. B. Black.

—△—

Dr. J. S. Hansberry of Wonewoc and Dr. P. H. Hansberry of Hillsboro have announced that Dr. Carl Milchen of Haverhill, Massachusetts, will be associated with them. He will have office hours every afternoon from 1:30 to 5:00 in Wonewoc and at other times can be reached at the Hansberry Hospital at Hillsboro.

—△—

Dr. J. P. Koehler, Milwaukee health commissioner, who has left for a two months' European trip, was guest of the Association of School Physicians at a luncheon on Tuesday, June 22, at the Ambassador Hotel, Milwaukee.

—△—

Dr. B. J. Bertram, who recently was graduated from the Marquette University School of Medicine and has completed his internship at St. Mary's Hospital in Milwaukee, will be associated with Dr. H. V. Foshion at Algoma.

BIRTHS

A son to Dr. and Mrs. J. V. Herzog of Elkhorn in July.

A son, Frederik Lawrence, to Dr. and Mrs. L. G. Patterson, Waupaca, on June 17.

MARRIAGES

Dr. S. W. Simonson of Dallas and Miss Violla Ashley of Dallas on June 8.

DEATHS

Dr. Jacob S. Kjelland, East Ellsworth, died at his home on June 14 at the age of sixty-seven. A heart ailment and other complications were the cause of his death.

He was born at Rushford, Minnesota, in 1870. Following his preliminary education he attended the University of Minnesota where he took his medical course. He was graduated from there in 1898.

Doctor Kjelland first started his practice in Twin Valley, Minnesota, from where he moved to Crookston. He practiced at the latter location for over twenty years and then moved to Ellsworth in 1919, making it his home until his death.

He is survived by his widow, five sisters, and two brothers.

During the World War Doctor Kjelland was made captain in the medical corps of the United States army.

Dr. Thomas E. Cavanaugh, Wauwatosa, who had been in ill health for several years, died at St. Joseph's Hospital, Milwaukee, on June 17. Born in Hartford, Wisconsin, in 1874, Doctor Cavanaugh attended Creighton University, the University of Chicago, and Rush Medical School. He was on the staffs of St. Joseph's and Misericordia hospitals. Survivors are his widow, a son, and three daughters.

Dr. James R. Barnett, Jr., Neenah, who had been in poor health for several years, died as a result of a heart attack on July 11.

He was born in Neenah and attended the University of Wisconsin where he took a premedic course. He was graduated from Rush Medical College at Chicago and later took postgraduate work there. For twenty years he practiced medicine at Neenah and for several years was city physician. In 1920 Doctor Barnett retired from medical practice because of failing health, and engaged in the real estate business.

Surviving are his widow, three sons, and a sister.

Dr. Karl L. De Sombre, Fond du Lac, died at his home on June 28 after a three months' illness. He was born in 1862 in Fond du Lac and was graduated from the New York University Medical College in 1889. He practiced medicine in Fond du Lac, Princeton, and Medford prior to his retirement five years ago. Surviving are his widow, two daughters and a sister.

SOCIETY RECORDS

New Members

E. W. Huth, Two Rivers.

R. A. Teschan, 231 W. Wisconsin Ave., Milwaukee.

A. P. Campbell, East Ellsworth.

Irving Auld, Clintonville.

G. H. Hansmann, 3321 N. Maryland Avenue, Milwaukee.

Changes in Address

C. E. Roach, Milwaukee, to Greenville, Mississippi.

E. K. Steinkopff, Pewaukee, to 1018 N. Jefferson St., Milwaukee.

E. H. Jorris, Mauston, to Sparta.

Scientific Program for 96th Anniversary Meeting Wednesday, Thursday, Friday, Sept. 15-17

THE Council on Scientific Work has prepared and presents the preliminary program for the ninety-sixth anniversary meeting of the Society to be held in Milwaukee on September 14, 15, 16, and 17. A study of the program will reveal at once that the program has been arranged to make available to the membership a concentrated three-day postgraduate course in the application of present-day scientific knowledge to bedside medicine. Those in charge of the preparation of the program have chosen to stress, in the general session, the subject of preventive medicine in general practice. The sectional meetings have been arranged to afford members an opportunity to secure information on the more highly specialized subjects in which they have a particular interest.

The demand for entry to the round-table luncheons has necessitated the enlargement of this feature of the program. Round-table luncheons will be held on both Thursday and Friday noons, with a total of thirty-four luncheons scheduled. A special bulletin will be mailed to the members explaining the luncheons and an opportunity will be given at that time to make individual reservations for the luncheons.

The program will be conducted on an exact-timed schedule. You are assured that the topic will be presented at the hour designated in the program which follows.

TUESDAY, SEPTEMBER 14

Noon

12:00 Meeting of Council—Schroeder Hotel.

P. M.

4:00 House of Delegates—Schroeder Hotel.

WEDNESDAY, SEPTEMBER 15

A. M.

8:00 Registration at Milwaukee Auditorium—Exhibits open.

9:00 General Session—Plankinton Hall.

9:00 Differential Diagnosis Between Kidney and Gall Stones.
W. G. Sexton, Marshfield.
R. P. Potter, Marshfield.

9:30 Bedside Diagnosis and Treatment of Cardiac Irregularities.
(With movie of heart valves in action.)
V. W. Koch, Janesville.

9:55 Self-Produced Lesions of the Skin; Their Medical and Economic Importance.
O. H. Foerster, Milwaukee, professor of dermatology, University of Wisconsin Medical School, Madison.

10:15 The Value of Active Immunization and the Place of a Specific Antitoxin in the Treatment of Scarlet Fever.
O. M. Layton, Fond du Lac.

10:35 Discussant—E. H. Pawsat, Fond du Lac.

10:40 Recess to view exhibits.

11:00 General Session—Plankinton Hall.

11:00 Principles Governing Treatment of Severe Streptococcal Infections.
R. A. Kinsella, professor of internal medicine, St. Louis University School of Medicine, St. Louis, Missouri.

11:30 Discussant.

11:40 Prevention of Postoperative Pulmonary Emboli.
K. H. Doege, Marshfield.

Wednesday P.M. (Cont'd)

P. M.

1:30 Demonstrations in Exhibits.

2:00 General Session—Plankinton Hall.

2:00 Surgical Aspects of Indigestion.
E. L. Eliason, professor of clinical surgery, University of Pennsylvania, Philadelphia.

2:20 Indications for Bronchoscopy.
Chevalier Jackson, clinical professor of bronchoscopy and esophagoscopy, Temple University School of Medicine, Philadelphia, Pennsylvania.

2:50 Discussants—L. A. Copps, Marshfield.
J. S. Gordon, Milwaukee.

3:00 Recess to view exhibits.

3:20 General Session—Plankinton Hall.

Symposium

The Family Physician—A Unit in Preventive Medicine

3:20 The Family Physician's Role in Preventive Medicine.
F. G. Johnson, Iron River.

3:40 Tuberculosis Prevention.
J. Arthur Myers, professor of medicine, University of Minnesota Medical School, Minneapolis, Minnesota.

4:00 Discussant—A. A. Pleyte, Milwaukee.

4:05 Modern Medical Trends in Pediatrics.
F. C. Rodda, associate professor of pediatrics, University of Minnesota Medical School, Minneapolis, Minnesota.

4:25 Discussants—G. W. Krahn, Oconto Falls.
L. O. Helmes, Oshkosh.

4:35 Practical Demonstrations in Technical Procedures Involving Preventive Medicine.
Demonstrations and procedures will be conducted in the scientific exhibit hall. Scientific exhibit booths will be in charge of: Maurice Hardgrove, Max J. Fox and R. H. Stiehm.

6:45 House of Delegates—Schroeder Hotel.

8:30 Smoker—Discussion by J. George Crownhart, secretary.
How to Vote—a movie by Robert Benchley.

THURSDAY, SEPTEMBER 16

A. M.

8:00 House of Delegates—Schroeder Hotel.

8:30 General Session—Plankinton Hall.

8:30 Anesthesia—E. A. Rovenstine, professor of anesthesia, New York University Medical School, New York, New York.

8:50 Modern Methods of Treating Lobar Pneumonia.
Cyrus Sturgis, professor of medicine, University of Michigan Medical School, Ann Arbor, Michigan.

9:20 Treatment of Diseases of the Heart.
F. A. Willius, associate professor of medicine, University of Minnesota, Graduate School of Medicine, Minneapolis–Rochester, Minnesota.

9:50 Recess to view exhibits.

10:10 General Session—Plankinton Hall.

10:10 Growth and Development of Babies.
C. A. Aldrich, Winnetka, Illinois, assistant professor of pediatrics, Northwestern University Medical School, Chicago.

10:30 Discussant—A. B. Schwartz, Milwaukee.

10:35 Abnormal Vaginal Discharges.
Edward L. Cornell, assistant professor of obstetrics, Northwestern University Medical School, Chicago, Illinois.

10:55 Discussant—R. M. Kurten, Racine.

11:00 Address of President-Elect James C. Sargent.

11:20 Stone Impacted in Lower Ureter from the View of the General Practitioner and the Urologist.
Vincent J. O'Conor, associate professor of genito-urinary surgery, University of Illinois College of Medicine, Chicago, Illinois.

SECTION ON OTOLARYNGOLOGY

Committee Room A

E. G. Nadeau, Green Bay, chairman.

9:00 Cancer of the Larynx.
Chevalier Jackson, clinical professor of bronchoscopy and esophagoscopy, Temple University School of Medicine, Philadelphia, Pennsylvania.

9:50 Discussant—J. E. Mulsow, Milwaukee.
10:00 Preservation of Hearing.
H. B. Hitz, Milwaukee.
10:35 Discussant—L. C. Gardner, Fond du Lac.
10:45 The Treatment of Acute Mastoiditis.
J. K. Trumbo, Wausau.
11:20 Discussant—A. H. Pember, Janesville.
11:30 Lateral Sinus Thrombosis.
W. M. Nesbit, Madison.
11:50 Discussant—O. M. Wilson, Wausau.

12:00 Noon Round-Table Discussions—Schroeder Hotel

Obstetrical Analgesia
R. E. McDonald, professor of obstetrics, Marquette University, Milwaukee
Pere Marquette Room, Fifth Floor

Neurology—Effect of Projected Legislation on Institutional Care in Mental Hygiene
A. W. Bryan, Madison
English Room, Fifth Floor

Otolaryngology—Treatment in Chronic Sinusitis
H. G. Schmidt, Milwaukee
Pine Room, Fifth Floor

Ophthalmology—Management of Strabismus
F. A. Davis, Madison
Room B, Fifth Floor

Immunization Procedures in Childhood
M. G. Peterman, professor of pediatrics, Marquette University, Milwaukee
Room C, Fifth Floor

Osteomyelitis and Septic Arthritis
R. E. Burns, professor of orthopedics, University of Wisconsin, Madison
Parlor A, Fourth Floor

Urology—The Use in General Practice of the New Urinary Antiseptics, Mandelic Acid and Sulfanilamide
W. M. Kearns, professor of urology, Marquette University, Milwaukee
Parlor B, Fourth Floor

Asylum Physicians and Superintendents
G. E. Seaman, superintendent, Northern Asylum for the Insane, Winnebago
Parlor C, Fourth Floor

The Diagnosis of the Early and Precancerous Lesions
W. D. Stovall, Madison
Parlor D, Fourth Floor

Physical Therapy as Applied to Industrial Insurance
M. L. Jones, Wausau
Parlor E, Fourth Floor

Radiology: Bring your bone films with a short case history
J. Newton Sisk, Madison
Parlor F, Fourth Floor

Orthopedics—Treatment of Fractures About the Elbow in Children
W. P. Blount, Milwaukee
Parlor G, Fourth Floor

Treatment of Empyema
J. W. Gale, associate professor in surgery, University of Wisconsin, Madison
Club Rooms, Third Floor

Pancreatitis—Surgical *versus* Medical Treatment
Owen Wangensteen, professor of surgery, University of Minnesota, Minneapolis, Minnesota
Room D, Fifth Floor

Bedside Medicine and Newer Drugs
W. S. Middleton, dean, University of Wisconsin Medical School, Madison
Room E, Fifth Floor

Surgery of Tuberculosis
Forrester Raine, assistant clinical professor of surgery, Marquette University, Milwaukee
Room F, Fifth Floor

Anesthesia—The Cause and Treatment of Respiratory and Circulatory Crises
E. A. Rovenstine, New York, and R. M. Waters, professor of anesthesia, University of Wisconsin, Madison
Parlor I, Fourth Floor

Round Tables for Hunters
Parlor H, Fourth Floor

P. M.

1:45 Recess.

2:15 Sectional meetings.

SECTION ON MEDICINE

Plankinton Hall

F. D. Murphy, Milwaukee, chairman.

2:15 The Modern Treatment of Lobar Pneumonia.
Cyrus Sturgis, professor of medicine, University of Michigan Medical School, Ann Arbor, Michigan.
2:35 The Use of Protamine Insulin in General Practice.
C. C. Edmondson, Waukesha.
2:55 Some Phases of Bleeding.
F. W. Madison, Milwaukee.
3:15 Subject to be announced.
Paul H. Garvey, assistant professor of neurology, University of Rochester School of Medicine, Rochester, New York.

3:35 *The medical section will then dissolve itself into six round-table symposiums to be held in Market Hall.*

1. Diseases of the Gastro-Intestinal Tract.
   Joseph Shaiken, Milwaukee, symposium leader.
2. Recent Advances in Drug Therapy.
   Joseph Lettenberger, Milwaukee, symposium leader.
3. The Leukemias.
   O. O. Meyer, Madison, symposium leader.
4. Practical Aspects of Protamine Insulin.
   H. E. Marsh, Madison, symposium leader.
5. Vascular Diseases of the Extremities.
   Maurice Hardgrove, Milwaukee, symposium leader.
6. Diseases of the Thyroid Gland.
   L. M. Warfield, Milwaukee, symposium leader.

SECTION ON UROLOGY

Directors' Room.

H. E. Kasten, Beloit, chairman.

2:15 A Comparison of the Value of Gluconic Acid and Ammonium Nitrate as Urinary Acidifying Agents.
Ira R. Sisk, Madison.

2:40 Revival in Syphilis.
M. W. Sherwood, Milwaukee.

3:05 Carcinoma of Penis.
G. H. Ewell, Madison.

3:30 Newer Ideas in the Treatment of Chronic Prostatitis and Seminal Vesiculitis.
W. K. Gray, Milwaukee.

3:55 Use of Mandelic Acid in Urinary Tract Infections.
Alexander Schlapik, Kenosha.

SECTION ON PEDIATRICS

Mechanics Hall—Special Room B.

J. E. Gonce, Jr., Madison, chairman.

2:15 Treatment of Congenital Syphilis.
H. R. Foerster, Milwaukee.

2:35 Discussant—H. J. Farrell, Milwaukee.

2:45 Leukemia in Childhood.
L. M. Simonson, Sheboygan.

3:05 Discussant—O. O. Meyer, Madison.

3:15 Dystrophies of Childhood.
M. G. Peterman, Milwaukee.

3:35 Discussant—W. P. Blount, Milwaukee.

3:45 Treatment of Nephritis in Children.
C. A. Aldrich, Winnetka, Illinois.

4:05 Discussant—H. K. Tenney, Madison.

4:15 Complemental Feeding of the Newborn and Care of the Skin.
F. C. Rodda, Minneapolis, Minnesota.

4:35 Discussant—H. A. Sincock, Superior.

SECTION ON SURGERY

Engelmann Hall.

O. R. Lillie, Milwaukee, chairman.

2:15 Benign Lesions of the Breast which Simulate Malignancy.
F. A. Stratton, Milwaukee.

2:35 Symposium on Preoperative and Postoperative Treatment

2:35 Preoperative Treatment.
Irwin Schulz, Milwaukee.

2:50 Fluid Requirements.
Forrester Raine, Milwaukee.

3:05 Postoperative Treatment.
M. A. McGarty, La Crosse.

3:20 The Role of the Surgeon in the Treatment of Acute Pyogenic Infections.
Owen H. Wangensteen, professor of surgery, University of Minnesota Medical School, Minneapolis, Minnesota.

SECTION ON OPHTHALMOLOGY

Committee Room A

Lyman A. Copps, Marshfield, chairman.

2:15 Conjunctivitis: Diagnosis, Etiology, and Treatment.
C. S. O'Brien, professor of ophthalmology, State University of Iowa, College of Medicine, Iowa City, Iowa.

2:45 Discussant—J. M. Molsberry, Milwaukee.

2:55 Differential Diagnosis of Lenticular Opacities.
F. H. Haessler, Milwaukee.

3:25 Discussant—C. K. Schubert, Madison.

3:35 The Mosher–Toti Operation.
F. S. Cook, Eau Claire.

4:05 Discussant—W. H. Neumann, Sheboygan.

4:15 Sight Saving Programs—Preventive Medicine for the Layman.
F. A. Kartak, dean, Marquette University School of Engineering, Milwaukee.

4:40 Discussant—E. E. Neff, Madison.

4:50 Business Meeting.

SECTION ON OBSTETRICS AND GYNECOLOGY

Mechanics Hall—Special Room A

Edward F. Schneiders, Madison, chairman

2:15 Prophylaxis and Therapy of Puerperal Sepsis.
J. M. Freeman, Wausau.

2:45 Discussant—A. H. Lahmann, Milwaukee.

2:55 Low Cervical *versus* Classical Cesarean Section.
R. E. Campbell, Madison.

3:25 Discussant—H. J. Olson, Milwaukee.

3:35 Relationship Between Breast Physiology and Breast Pathology.
H. W. Shutter, Milwaukee.

4:05 Discussant—

SECTION ON INSTITUTIONAL CARE

Committee Room D

A. W. Bryan, Madison, chairman

2:15 Report of Committee on Institutional Care and Mental Hygiene
A. W. Bryan, chairman

2:30 Recent Tour of Wisconsin County Institutions and Report of Work Under Auspices of National Society for Mental Hygiene
G. A. Kempf, senior surgeon U.S.P.H.S., Boston, Massachusetts

3:00 Suggestions in the Care of the Chronic Insane
W. C. Menninger, Menninger Clinic, Topeka, Kansas

3:30 Insulin Shock Treatment of Dementia Praecox (motion pictures)
H. H. Reese, professor of neuropsychiatry, University of Wisconsin Medical School, Madison; and
August Sauthoff, Mendota

3:50 Discussant—G. E. Seaman, Winnebago

4:00 Our Common Problems
Mrs. Katharine Sullivan, member of State Board of Control, Madison

4:20 Advantages of Hospital Facilities in the County Institutions
Mr. F. E. Overson, superintendent, Racine County Asylum, Racine

4:40–5:00 General Discussion

6:45 Annual Dinner—Schroeder Hotel.

"The Great Centers of Medical Thought in the Past"
Dr. Logan Clendening, Kansas City, Missouri, clinical professor of medicine, University of Kansas School of Medicine, Lawrence–Kansas City, Kansas.

Dancing.

FRIDAY, SEPTEMBER 17

A. M.

8:30 General Session—Plankinton Hall.

8:30 Recent Advancements in Psychiatric Therapy.
Annette C. Washburne, assistant professor of psychiatry, University of Wisconsin Medical School, Madison.

8:50 Rogers Memorial Lecture: Psychological Factors in Medical and Surgical Conditions.
Wm. C. Menninger, Topeka, Kansas.

9:20 Discussant—M. Q. Howard, Milwaukee Sanitarium, Wauwatosa.

9:30 Results of the Surgical Treatment and Criteria of Treatment of Tuberculosis.
E. R. Daniels and L. H. Kingsbury, Statesan.

10:00 Recess.

10:20 General Session—Plankinton Hall.

10:20 Pain Relief in Labor.
Robert M. Grier, Evanston, Illinois.

10:40 The Obstetrical Forceps: Its Use and Abuse.
J. W. McGill, Superior.

11:00 Discussants—C. S. Harper, Madison.
J. W. Harris, Madison.

11:10 The History and Application of New Advances in the Treatment of Fracture of the Neck of the Femur.
Edward T. Evans, assistant professor of orthopedic surgery, University of Minnesota Medical School, Minneapolis, Minnesota.

11:30 The Heart of Middle Life.
J. H. J. Upham, president, American Medical Association, Columbus, Ohio.

12:00 Noon Round-Table Discussions—Schroeder Hotel

Anesthesia—The Role of Carbon Dioxide in Clinical Medicine
R. Waters, professor of anesthesia, University of Wisconsin, Madison
Pere Marquette Room, Fifth Floor

Infectious Diseases—Recent Developments in Immunization Procedures
A. B. Schwartz, Milwaukee
English Room, Fifth Floor

Peripheral Vascular Diseases
Maurice Hardgrove, Milwaukee
Pine Room, Fifth Floor

Diseases of the Liver
James F. Weir, Rochester, Minnesota
Room B, Fifth Floor

Practical Treatment of Heart Diseases in the Home
C. M. Kurtz, assistant professor of medicine, University of Wisconsin, Madison
Room C, Fifth Floor

Tuberculosis—Present Significance of the Negative Sputum
W. H. Oatway, Jr., Madison
Parlor A, Fourth Floor

Conservative *versus* Radical Treatment of Appendicitis
S. B. Gundersen, La Crosse
Parlor B, Fourth Floor

Peritonitis
E. H. Mensing, Milwaukee
Parlor C, Fourth Floor

Obstetrics—What is a Test of Labor?
Robert M. Grier, Evanston, Illinois
Parlor D, Fourth Floor

Pediatrics—Deficiency Diseases
K. E. Kassowitz, associate professor of pediatrics, Marquette University, Milwaukee
Parlor E, Fourth Floor

Radiology: Bring your chest films with a short case history
Sam Morton, radiologist, Columbia Hospital, Milwaukee
Parlor F, Fourth Floor

Bedside Medicine and Newer Drugs
W. S. Middleton, dean, University of Wisconsin Medical School, Madison
Parlor G, Fourth Floor

Orthopedists and Crippled Children Committee
J. W. Powers, chairman, Crippled Children's Committee, Milwaukee
Parlor H, Fourth Floor

Back Pain
Edward T. Evans, assistant professor of orthopedics, University of Minnesota, Minneapolis, Minnesota
Club Rooms, Third Floor

Carcinoma of the Rectum
S. J. Seeger, Milwaukee
Room E, Fifth Floor

Round Table for Fishermen
Herbert Townsend, La Crosse, and Captain C. F. Culler, United States Bureau of Fisheries, La Crosse
Room D, Fifth Floor

P. M.

1:45 Recess.

2:15 General Session—Plankinton Hall.

2:15 Symposium on Endocrinology.
2:15 Dr. Edward H. Rynearson, Rochester, Minnesota.
3:00 Dr. E. L. Sevringhaus, Madison.
3:45 Discussant—

4:00 Adjournment.

"Hall of Health"

AS AN added feature to the Society's annual meeting the Council on Scientific Work has secured an outstanding selection of health exhibits, which will be open for inspection by the general public. Popular demand for authentic and reliable health information stimulated the Council on Scientific Work to gather together the outstanding exhibits listed below. Many phases of the science of medicine will be portrayed to the public in

simple style so that one who does not have scientific training may be given a true understanding of the practice of medicine. The "Hall of Health" will be described in detail in the September issue of the Journal.

Milwaukee Roentgen Ray Society, *The History of Roentgen Ray;* Columbia Hospital, Milwaukee, *The Story of Anesthesia;* Milwaukee Children's Hospital, *Burns;* Wisconsin Anti-Tuberculosis Association, *Prevention of Tuberculosis;* State Laboratory of Hygiene, University of Wisconsin Medical School and State Board of Health, *Laboratory Diagnosis of Disease;* Department of Anatomy, Marquette University School of Medicine, *Story of Embryonic Life;* Department of Physiology, Marquette University School of Medicine, *The Pattern of Blood Vessels;* Department of Pathology, Marquette University School of Medicine, *Cancer;* Department of Medicine, Milwaukee County General Hospital, Marquette University School of Medicine, *Bright's Disease;* Marquette University Dental School, *Oral Diagnosis, Pedodontia, Orthodontics;* Wisconsin Crippled Children Division, *Prevention of Deformities;* The Milwaukee Health Department, *Preventive Medicine;* S. H. Camp and Company, Jackson, Michigan, *Transparent Woman;* Wisconsin State Board of Health, *Preventive Medicine and Public Health;* Wisconsin State Nurses Association, *History of Nursing;* Sight Saving Council of Milwaukee, Inc., *The Saving of Sight;* American Medical Association and Woman's Auxiliary to State Medical Society of Wisconsin, *Hygeia;* American College of Surgeons, *The History of Surgery;* American Medical Association, *Syphilis, Information about Health, Mechanical Nostrums, Objectionable Cosmetics, Posture, Patent Medicine Testimonials, Hippocrates;* Wisconsin Pharmaceutical Association, *The History of Pharmacy;* Association of American Medical Colleges, *Medical Education;* The Junior League Curative Workshop, *Occupational Therapy;* Petrolagar Laboratories, Chicago, *"The Family Doctor";* The Medical Society of Milwaukee County, *Hobbies and Health, Organized Medicine in Milwaukee;* Wisconsin State Dental Society, *"The Talking Tooth," Mastication, Toothbrushing, Dental Education;* University of Illinois Dental School, *Tooth Ring Analysis;* American Society for the Control of Cancer and Wisconsin Division, Women's Field Army, *The Story of Cancer;* Council on Scientific Work, State Medical Society of Wisconsin, *Information and Headquarters.*

PLAN TO ATTEND THE SMOKER
of the
MEDICAL SOCIETY OF MILWAUKEE COUNTY
Schroeder Hotel, Wednesday Evening
September 15

PROGRAM SYNOPSIS

Tuesday—September 14
12:00 noon—Council—Schroeder Hotel
P. M.
4:00—House of Delegates—Schroeder Hotel

Wednesday—September 15
A. M.
8:00—Registration—Milwaukee Auditorium
9:00—General Sessions—Milwaukee Auditorium
10:40—Recess to View Exhibits
11:00—General Sessions
P. M.
1:30—Demonstrations in Exhibits
2:00—General Sessions
3:00—Recess to View Exhibits
3:20—General Sessions
Symposium—The Family Physician and Preventive Medicine
6:45—House of Delegates—Schroeder Hotel
8:00—Smoker—Schroeder Hotel

Thursday—September 16
A. M.
8:00—House of Delegates—Schroeder Hotel
8:30—General Sessions—Milwaukee Auditorium
9:50—Recess to View Exhibits
10:10—General Sessions
12:00—Round-Table Luncheons—Schroeder Hotel
P. M.
1:45—Recess to View Exhibits
2:15—Sectional Meetings
Medicine
Urology
Obstetrics and Gynecology
Pediatrics
Surgery
Ophthalmology
Otolaryngology
Institutional Care
6:45—Annual Dinner—Schroeder Hotel—Informal Address — Dr. Logan Clendening, Kansas City, Mo.
Dancing

Friday—September 17
A. M.
8:30—General Sessions—Milwaukee Auditorium
10:00—Recess to View Exhibits
10:20—General Sessions
12:00—Round-Table Luncheons—Schroeder Hotel
P. M.
1:45—Recess to View Exhibits
2:15—General Sessions
4:00—Adjournment

Members—1937 House of Delegates

Society	*Delegate*	*Alternate*
Ashland–Bayfield–Iron	C. J. Smiles, Ashland	J. M. Dodd, Sr., Ashland
Barron–Washburn–Sawyer–Burnett	A. S. White, Rice Lake	H. H. Schlomovitz, Barron
Brown–Kewaunee–Door	P. R. Minahan, Green Bay	W. W. Kelly, Green Bay
	O. A. Stiennon, Green Bay	W. E. Leaper, Green Bay
Calumet	J. W. Goggins, Chilton	N. J. Knauf, Chilton
Chippewa	W. H. Fortner, Bloomer	A. W. Overgaard, Stanley
Clark	H. H. Christofferson, Colby	M. C. Rosekrans, Neillsville
Columbia–Marquette–Adams	H. M. Caldwell, Columbus	W. H. Costello, Randolph
Crawford	C. A. Armstrong, Prairie du Chien	E. T. Ackerman. Gays Mills
Dane	H. E. Marsh, Madison	W. A. Werrell, Madison
	E. F. Schneiders, Madison	A. R. Tormey, Madison
	L. W. Peterson, Sun Prairie	Louis Fauerbach, Madison
	J. N. Sisk, Madison	M. J. J. Coluccy, Madison
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam
Douglas	H. J. Orchard, Superior	C. W. Giesen, Superior
Eau Claire–Dunn–Pepin	J. C. Baird, Eau Claire	Oscar Knutson, Osseo
Fond du Lac	D. J. Twohig, Fond du Lac	C. W. Leonard, Fond du Lac
Forest	G. W. Ison, Crandon	O. S. Tenley, Wabeno
Grant	C. H. Andrew, Platteville	E. C. Howell, Fennimore
Green	J. F. Mauermann, Monroe	W. G. Bear, Monroe
Green Lake–Waushara	A. J. Wiesender, Berlin	George Baldwin, Green Lake
Iowa	C. J. Metcalf, Dodgeville	W. P. Hamilton, Dodgeville
Jefferson	H. P. Bowen, Watertown	W. S. Waite, Watertown
Juneau	F. H. Ferguson, Elroy	J. S. Hess, Jr., Mauston
Kenosha	A. F. Ruffolo, Kenosha	G. F. Adams, Kenosha
La Crosse	N. P. Anderson, La Crosse	R. L. Eagan, La Crosse
Lafayette	S. A. J. Ennis, Shullsburg	E. D. McConnell, Darlington
Langlade	G. E. Moore, Antigo	W. P. Curran, Antigo
Lincoln	E. O Ravn, Merrill	R. G. Baker, Tomahawk
Manitowoc	R. W. Hammond, Manitowoc	A. P. Zlatnik, Two Rivers
Marathon	S. M. B. Smith, Wausau	E. E. Flemming, Wausau
Marinette–Florence	A. T. Nadeau, Marinette	J. W. Boren, Marinette
Milwaukee	Norbert Enzer, Milwaukee	W. F. Grotjan, Milwaukee
	L. W. Hipke, Milwaukee	E. J. Carey, Milwaukee
	R. P. Sproule, Milwaukee	C. W. Eberbach, Milwaukee
	C. M. Echols, Milwaukee	S. M. Markson, Milwaukee
	J. W. Smith, Milwaukee	Irwin Schulz, Milwaukee
	William Ryan, Milwaukee	D. D. Mehigan, Milwaukee
	F. W. Mackoy, Milwaukee	Bernard Churchill, Milwaukee
	F. D. Murphy, Milwaukee	Millard Tufts, Milwaukee
	H. W. Powers, Milwaukee	T. J. Howard, Milwaukee
	H. C. Schumm, Milwaukee	Edward Jackson, Milwaukee
	E. L. Tharinger, Milwaukee	H. J. Olson, Milwaukee
	G. W. Neilson, Milwaukee	A. R. Langjahr, Milwaukee
	F. E. Drew, Milwaukee	A. H. Lahmann, Milwaukee
Monroe	A. R. Bell, Tomah	G. C. Devine, Ontario
Oconto	R. J. Goggins, Oconto Falls	W. C. Watkins, Oconto
Oneida–Vilas	W. S. Bump, Rhinelander	O. R. McMurry, Eagle River
Outagamie	A. E. Rector, Appleton	R. T. McCarty, Appleton
Pierce–St. Croix	A. E. McMahon, Glenwood City	O. H. Epley, New Richmond
Polk	R. G. Arveson, Frederic	A. N. Nelson, Clear Lake
Portage	E. E. Kidder, Stevens Point	H. P. Benn, Stevens Point
Price–Taylor	J. D. Leahy, Park Falls	L. E. Nystrum, Medford
Racine	H. B. Keland, Racine	T. C. Hemmingsen, Racine
Richland	George Parke, Viola	B. I. Pippin, Richland Center
Rock	W. J. Allen, Beloit	W. A. Munn, Janesville
Rusk	L. M. Lundmark, Ladysmith	Woodruff Smith, Ladysmith
Sauk	E. V. Stadel, Reedsburg	H. A. Bachhuber, Sauk City
Shawano	A. A. Cantwell, Shawano	F. L. Litzen, Gresham
Sheboygan	W. H. Neumann, Sheboygan	G. J. Hildebrand, Sheboygan
Trempealeau–Jackson–Buffalo	J. P. Reinhardt, Fountain City	R. L. MacCornack, Whitehall
Vernon	W. M. Trowbridge, Viroqua	W. H. Remer, Chaseburg
Walworth	Walter Mauthe, Whitewater	D. H. Jeffers, Lake Geneva
Washington–Ozaukee	J. G. Hoffmann, Hartford	O. J. Hurth, Cedarburg
Waukesha	H. A. Peters, Oconomowoc	Herbert Barnes, Delafield
Waupaca	A. M. Christofferson, Waupaca	R. K. Irvine, Manawa
Winnebago	R. B. Rogers, Neenah	J. M. Conley, Oshkosh
Wood	K. H. Doege, Marshfield	F. X. Pomainville, Wisconsin Rapids

Amendments to the Constitution and By-Laws

AT THE last regular meeting of the House of Delegates, held in Madison, members of the House recommended that certain amendments to the Constitution and By-Laws be drafted and submitted to the members of the House.

The secretary's office has received from one of the component county medical societies an additional proposed amendment. According to the Constitution and By-Laws, amendments to the Constitution must be submitted to the members of the House of Delegates by official communication within sixty days prior to the meeting of the House.

On July 9 the proposed amendments to the Constitution and By-Laws were forwarded to the delegates and the alternates and the secretaries of component county medical societies. The amendments to the Constitution and By-Laws which are before the House are as follows:

Amendments to the By-Laws

1. Amendment introduced by Delegate Rector of the Outagamie County Medical Society. Amend Chapter XI of the By-Laws by adding the material italicized. "Section 3. Each county society shall judge of the qualifications of its members, subject to review and final decisions by the Council of the State Society. Every reputable and legally qualified physician *who is a citizen of the United States*, who is a bona fide resident of the same county shall be eligible to membership so long as he does not practice nor profess to practice sectarian medicine, or engage in practice in a manner in conflict with the Principles of Ethics of the American Medical Association, or so conduct himself as to defeat or tend to defeat the purposes for which the Society is organized and is operating."

2. Amendment introduced by Delegate Rector of the Outagamie County Medical Society. Amend Section 3 of Chapter XI of the By-Laws by adding the material italicized. "Section 3. Each county society shall judge of the qualifications of its members, subject to review and final decisions by the Council of the State Society. Every reputable and legally qualified physician who is a bona fide resident of the same county shall be eligible to membership so long as he does not practice nor profess to practice sectarian medicine, or engage in practice in a manner in conflict with the Principles of Ethics of the American Medical Association, or so conduct himself as to defeat or tend to defeat the purposes for which the Society is organized and is operating.

"*By proper provision of Constitution and By-Laws, either or both as may be necessary, the county society may require of an applicant for membership that he shall have resided within the jurisdiction of the society to which he is applying, for a period of one year as a condition predecent to election to membership.*"

Amendments to the Constitution

1. Amendment reintroduced by Delegate Henderson of the Lincoln County Medical Society. Amend Section 2 of Article IX of the Constitution by repealing all of said Section 2 and re-creating Section 2 to read as follows: "Section 2. The president, president-elect, speaker, and vice-speaker shall be elected by the House of Delegates. The secretary and treasurer shall be elected by the Council. Councilors shall be elected at a meeting of their respective district societies. Notice of election shall be incorporated in a mailed notice to the members at least seven days before such meetings.

"Election, when more than one nomination is received, shall be by ballot and a majority of votes cast shall be necessary to elect. Each candidate for councilor must be a resident of the district which he is proposed to represent and no person known to have solicited votes for or sought the office of councilor shall be eligible for the current election. Other procedure essential to the election shall be governed by Robert's Rules of Order.

"The officers, except the councilors, shall be elected annually. The terms of councilors shall be for three years and all officers shall serve until their successors are elected and installed. Terms of councilors shall expire in the following order:

"Seventh, eighth, ninth, tenth, and thirteenth districts in 1938; first, second, eleventh, and twelfth districts in 1939; and third, fourth, fifth, and sixth districts in 1940, and thereafter shall be elected in order.

"This amendment offered in 1936 is to be acted upon in 1937 and shall, upon adoption, be effective on January 1, 1938."

Explanatory note: The purpose of the amendment is to provide that councilors shall be elected, when their terms expire, by elections held at district meetings.

2. Amendment officially communicated to the secretary by the Columbia–Marquette–Adams County Medical Society. Amend Section 2 of Article IX of the Constitution as follows *(words in italics are to be taken out)*: "Section 2. The officers, except the councilors, shall be elected annually. The terms of the councilors shall be for three years.

"As nearly as possible, one third of the members

of the Council shall be elected each year. *The secretary and* the treasurer shall be elected by the Council. All these officers shall serve until their successors are elected and installed.

"The president-elect shall automatically succeed the office of president at the conclusion of his one-year term of president-elect."

Explanatory note: The purpose of this amendment is to provide that the secretary shall be elected by the House of Delegates rather than by the Council.

Further note: If the amendment to the constitution proposed by the Columbia–Marquette–Adams County Medical Society is adopted, these additional amendments to the By-Laws are essential.

3. Amendment officially communicated to the secretary by the Columbia–Marquette–Adams County Medical Society. Amend Chapter 6 of the By-Laws by repealing all of Section 8 ("Section 8. The Council may elect as secretary one who need not be a physician nor a member of the Society.") and renumbering Section 9 to be Section 8 and Section 10 to be Section 9, and further amending Chapter III of the By-Laws by adding Section 9 to read: "The House of Delegates may elect as secretary one who need not be a physician nor a member of the Society."

Scientific Exhibits

THE scientific exhibit section of the annual meeting has demonstrated its popularity. While this is a comparatively new feature, the quality of the exhibits is outstanding.

Dr. Eben J. Carey, a member of the Council on Scientific Work, who has charge of the scientific exhibit section, has arranged for seventeen scientific exhibits. The entire area of Juneau Hall will be devoted to scientific exhibits to include the following:

Preventive Medicine

Whooping Cough
Diphtheria
Tetanus
Typhoid
Smallpox
Scarlet Fever

Health Council Demonstrators
Medical Society of Milwaukee County

F. E. Drew
A. F. Rheineck
M. Tufts
W. F. Grotjan
H. J. Kuhn

Child Welfare Committee Demonstrators
Medical Society of Milwaukee County

A. B. Schwartz
J. M. Jekel
F. R. Janney
J. H. Reynolds
V. L. Baker
B. Lieberman
N. F. Dettmann
R. P. Schowalter
F. C. Heidner
Eleänore Cushing

Scarlet Fever Convalescent Serum

Maurice Hardgrove
Convalescent Serum Center, Milwaukee

Tuberculosis: Diagnosis of Incipient Disease

R. H. Stiehm
Student Health Service, University of Wisconsin, Madison

Fundamentals in Prenatal Dentistry and Oralogy

Henry F. Hahn
Marquette University Dental School, Milwaukee

Oral Diagnosis: Pedodontia, Orthodontics

George W. Wilson
Marquette University Dental School, Milwaukee

Fractures
(Gold Medal Exhibit, Class II, A.M.A. Atlantic City, 1937)

M. S. Henderson
H. W. Meyerding
R. K. Ghormley
H. B. Macey
Mayo Clinic, Rochester, Minnesota

Ear, Nose, and Throat

W. E. Grove
Marquette University School of Medicine

Eye: Orthoptic Training

John B. Hitz
Milwaukee Children's Hospital

Peroral Endoscopy

L. A. Copps
Marshfield Clinic, Marshfield

Malignant Diseases of Gastro-Intestinal Tract
Bone Surgery

R. H. Jackson
J. A. Jackson
A. S. Jackson
J. T. Jerome
Jackson Clinic, Madison

Internal Fixation of Fracture of Hip by Four-Flanged Spike

L. D. Smith
Marquette University School of Medicine, Milwaukee

Fractures About the Elbow Joint in Children

S. J. Seeger
Milwaukee Children's Hospital

Pathologic Physiology, Differential Diagnosis and Treatment of Hematologic Dyscrasias

Charles A. Doan
Carl V. Moore
B. K. Wiseman

Ohio State University, Department of Medical and Surgical Research, Columbus, Ohio

Blood Vascular Injections

P. F. Swindle
Marquette University School of Medicine, Milwaukee

Tuberculin Test—Mantoux
Interpretation X-Ray Films

Oscar Lotz
W.A.T.A., Milwaukee

Lipocaic, A New Pancreas Hormone

L. R. Dragstedt
John Van Prohaska
University of Chicago, Department of Surgery, Chicago, Illinois

Endocrinopathies

James H. Hutton
Ernest C. Olson
E. E. Madden
William L. Culpepper
Illniois Central Hospital, Chicago, Illinois

Annual Reports of Officers and Committees to the 1937 House of Delegates

THE COUNCIL

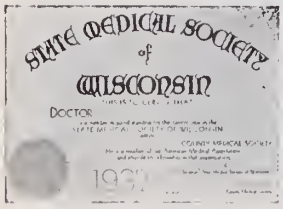
The detailed minutes of the general meeting of the Council were published in full in the February issue of our Journal. In addition to those subjects which appear in the minutes, however, the Council had presented to it personal reports from the president and secretary relating to the status of various proposals affecting vitally the entire field of the delivery of medical service. Recognizing from these reports that important legislative proposals would undoubtedly be presented in the 1937 session of the legislature, and desirous, as always, that major policies of the Society be framed by the House of Delegates, the Council delegated to the secretary power to issue in the name of the Council a call for a special session of the House of Delegates to review such legislation. This special session was held in April and was the first such special session in the ninety-six years of the Society's history.

A meeting of the Executive Committee of the Council preceded the meeting of the House of Delegates and a meeting of the Council was held immediately following adjournment of the House. A third meeting of the Council is scheduled just preceding the first session of the House of Delegates.

The Executive Committee of the Council, on authorization of the Council, also held a meeting for the discussion with the officers and legal counsel of the national insurance organizations, of the subjects of liens for accidents, medical and hospital care in accident cases, and medical panels under the Compensation Act. The chairman of the Council has designated a special committee to handle the former subject, but due to the pressure of legislative effort, the committee can only report progress at this time. The question of whether the Society wishes to be on record in favor of absolute free choice of physician under the Workmen's Compensation Act or whether it favors that type of free choice provided under the extended panels of the Employers Mutuals of this State, is one which well may be considered by the House.

PRELIMINARY REPORT OF SECRETARY

Membership



In accordance with the suggestion of the House of Delegates, the secretary prepared a new type of membership certificate for 1937. A copy of this certificate is reproduced to the left.

The membership on July 31 of 1936 was 2,115 as compared to 2,150 on July 31, 1937.

The Journal

The Editorial Board wishes to report to the House that with regret it has accepted the resignation of Dr. John Huston, of Milwaukee, as medical editor of the Journal. Dr. Huston gave most generously and liberally of his time for a period of five years and is to be commended for his efforts.

The Editorial Board has appointed Dr. George Ewell, of Madison, a member of its Board, as acting medical editor. Having in mind the reorganized Council on Scientific Work of the Society and the desirability of the closest possible connection between this council and the Journal, the Board recommends to the House that the By-Law constituting the Board be repealed and that the duties accruing to the Board be assigned to the Council on Scientific Work.

From the financial viewpoint a further reduction in the Society's contribution to the Journal was made in the 1937 budget and at the present time the cost of publishing the Journal per member, over and above advertising revenue, is considerably less than $1. Further advertising revenue increase is reported for the year, but costs of the Journal have increased due to increased printing costs, and secondly, the elaborate and extensive reports of legislative hearings and debates during the past four months on those proposals vitally affecting the delivery of medical service. It is anticipated, however, that a further decrease in the allowance from the general budget for the Journal may be made effective next January and that in the not distant future the Journal will again be wholly self-supporting.

Travel

During the last ten months your secretary has attended the following meetings:

I. *County and District Meetings*

- Dane County Medical Society
- Jefferson County Medical Society
- Polk County Medical Society
- First District
- Second District
- Third District
- Fourth District
- Fifth District
- Sixth District (2)
- Seventh District
- Eighth District
- Ninth District (2)
- Twelfth District
- Thirteenth District

II. *Committee Meetings*

Council
Editorial Board
Executive Committee of Council (3)
Mental Hygiene and Institutional Care
Public Policy
Scientific Work

III. *Miscellaneous Meetings*

Annual meeting conference
Biennial Conference on Social Work
Board of Trustees, American Medical Association
Citizens' Committee on Public Welfare, Subcommittee on Health and Disability (9)
Conference of department heads on social work
Conference, Resettlement Administration, cooperative medical care
Department of Public Instruction
District legislative meetings (4)
Ideal Club
Secretaries' Conference
Subcommittees on Assistance and Employment and Administration and League of Wisconsin Municipalities and County Boards Association
Wisconsin Hospital Association (3)
Wisconsin Pharmaceutical Association

During the last ten months your assistant secretary has attended the following meetings:

I. District Meetings

Tenth District
Eleventh District

II. Committee Meetings

Cancer (3)
Coordination of Medical Services
Council
Crippled Children (2)
Editorial Board
Executive Committee of Council (2)
Health and Public Instruction
Medical Defense
Medical Economics
Mental Hygiene and Institutional Care
Office Procedure
Scientific Work (2)
Syphilis (3)
Visual and Hearing Defects (2)

III. Miscellaneous Meetings

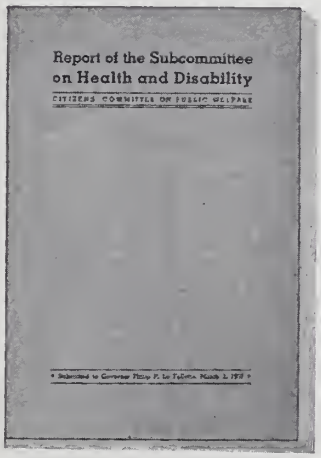
Annual meeting conferences (3)
Conferences, officers of American Hospital Association and American Medical Association
Conference, Resettlement Administration, cooperative medical care
Department of Public Instruction
District legislative meeting
Judicial Council, American Medical Association
Secretaries' Conference

Public Policy

The Committee on Public Policy of the Society held a long session subsequent to the convening of the legislature and considered in detail proposals affecting the public health from sources other than the profession, recommendations of the Governor's Citizens' Committee, and proposals from within the Society itself. The committee found that many of the proposals that emanated from within the Society were included in the report of the Governor's Citizens' Committee and felt that under the circumstances time should be allowed to permit the introduction of measures from that sourse. Other measures approved by the House of Delegates were withheld from introduction, under authority granted by the House, having in mind the extent of the effort that would be required during the then current legislative session.

At the 1936 session of the House, the Committee on Public Policy was asked to prepare and introduce legislation to permit the Board of Medical Examiners to exercise their judgment in the matter of approving credentials from foreign schools. The committee was advised by the secretary that such authority existed in the law and after research by legal counsel this opinion was approved by the attorney general. This disposes of this subject matter which has been before the House on two previous occasions.

Governor's Committee



During the first three months of 1937 the secretary completed his services with the Governor's Citizens' Committee on Public Welfare. These services extended over the period of a year during part of which time the secretary was acting chairman of the Subcommittee on Health and Disability. The special findings of this subcommittee, when it was learned that a general report only was to be published, were published by the Society with permission of the Governor. Copies were sent to all members of the legislature, members of the Society, and prominent and interested laymen throughout the State. Over seven thousand copies of this report were published at the expense of the Society as a means of performing an outstanding public service to the State.

During the year that this committee was in existence the secretary was permitted to give most generously of his time, and all facilities and personnel of the central office of the Society were placed at the disposal of the Subcommittee on Health and Disability. It is particularly pleasing to note that although the committee considered the subject of voluntary sickness insurance, no recommendation favoring that proposal was made.

Governor's "Planning Council"

At the suggestion of the secretary, and dealing with the subject of legislation affecting the control of venereal disease, Governor LaFollette created a Planning Council consisting of Dr. W. F. Lorenz, chairman; the secretary of the Society, secretary; all members of the Society's Committee on Syphilis, and in addition, the state health officer, the chief of the Division of Communicable Disease, and the head of the State Hygienic Laboratory. This council had several meetings resulting in the modification of bills pending before the legislature, publication of several outstanding articles in the Journal, and pertinent advice on problems submitted to the committee by the State Board of Health.

Committee Meetings

The Council appropriated within its budget the sum of $1,500 to cover the expense contingent upon meetings of the standing and special committees of the Society during the year. Despite a full legislative session, the frequency of committee meetings has been practically weekly and on several occasions two separate meetings were held on the same day. While special committees are frequently necessary to handle problems of importance at the time, but the continuance of which are not anticipated, so far as possible, the secretary recommends that the House assign special problems to standing and existing committees of the Society.

Rural Practice

The attention of the delegates is called to material that appears on page 2,215 of the Journal of the American Medical Association (June 26, 1937). The American Farm Bureau Federation asked the House of Delegates of the American Medical Association, among other things, that earnest thought be given to a change in the method of charging for calls in rural areas. The House of Delegates of the American Medical Association referred this to the constituent societies. The basic question is whether mileage charges should include time consumed *en route*, or whether the mileage charge should not be limited to the expense of automobile operation and a separate charge entered for time consumed in making country calls. Such separation of accounts, it is suggested, would clarify what is presently a general public misunderstanding in rural areas, and permit of greater accuracy in determining the costs of practice in rural areas. This subject is properly before the House for recommendation, to either the membership as a whole, or the component county medical societies.

House of Delegates

At the last session of the House of Delegates several amendments to the Constitution and By-Laws were introduced in general terms. These have been reduced to actual wording by the secretary and in accordance with provisions of the Constitution and By-Laws governing amendment, have been submitted to the secretaries of all the component societies as well as to the delegates and alternates.

The secretary desires to recommend a further amendment to the By-Laws, which amendment is to bring the By-Laws of the State Medical Society of Wisconsin on the point involved into exact accord with a similar amendment to the By-Laws of the American Medical Association. The By-Law suggested would amend Section 4, Chapter 11, of the By-Laws by adding the material in italics:

> "Sec. 4. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him, shall have the right to appeal to the Council, whose decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Society for final determination. *The period of time within which appeal to the Council may be taken shall be limited to six months following the date of decision by the constituted authority of a component county medical society.*"

Wisconsin Hospital Association

It has been the pleasure of your secretary to serve the seventh consecutive year as secretary-treasurer of the Wisconsin Hospital Association. As secretary-treasurer of the Wisconsin Hospital Association your secretary received an honorarium of $150. This honorarium is deposited to the general fund of the State Society.

During the past year, prior to the convening of the legislature, the Wisconsin Hospital Association made a survey of its members to determine the advisability and feasibility of introducing in the 1937 session of the legislature a lien law which would provide for a reimbursement to hospitals for services rendered, particularly in accident cases where the injured party might secure damages from an insurance carrier or from a suit arising out of the accidental injury.

With the legislation affecting hospitals before the recent session of the legislature, it was deemed inadvisable to introduce legislation looking toward the establishment of a lien law in Wisconsin.

Following the special meeting of the House of Delegates of the State Medical Society, a special meeting of the board of trustees of the Wisconsin Hospital Association was called to consider their position on the legislation introduced by Assemblyman Andrew J. Biemiller which would provide for group hospitalization contracts. At this original meeting of the board of trustees of the Wisconsin Hospital Association the action taken was to favor the principle of group hospitalization insurance. The Wisconsin Hospital Association board of trustees did, however, go on record in opposition to the remainder of the "Biemiller program."

At a subsequent meeting of the trustees of the Wisconsin Hospital Association held in Chicago the Association again placed itself on record as favoring group hospitalization contracts. In view of this position taken by the Wisconsin Hospital Association which was not compatible with the position taken by the House of Delegates at its special session, the secretary asked to be relieved of the secretaryship of the Wisconsin Hospital Association during the period of the legislature.

At a later meeting of the board of trustees of the Wisconsin Hospital Association, the Association went on record as opposing the introduction and passage of measures which would provide for the legalization of group hospitalization contracts at this session of the legislature. The Association did, by resolution, vote to make a thorough study of the question of group hospitalization contracts, and, following the results of its study, make a determination as to its position on group hospitalization contracts and legislation designed to legalize this type of insurance at the next session of the legislature.

Appeal to Judicial Council

The membership will recall that the Council of the State Society on September last upheld a decision of the Medical Society of Milwaukee County in expelling from membership certain Milwaukee physicians. From this decision of the Society the expelled members appealed to the Judicial Council of the American Medical Association. The Society prepared the complete record in the case, together with legal brief, as required by the American Medical Assocation, and was represented at the appeal hearing by its assistant secretary. The decision of the Judicial Council has not been announced at this date.

LEGAL SERVICE

Much of the assistance of legal counsel since the first of January, has, of course, been connected with detailed analysis of the bills affecting the public health in the 1937 session of the legislature. Of approximately 1,400 bills introduced, at least 100 affected, directly or indirectly, the field of public health and required careful and detailed analysis. The full report concerning the 1937 legislative session will be published in the September issue of the Journal.

Opinions from legal counsel were necessary in answering inquiries submitted to this office concerning the Social Security Act and the Wisconsin Unemployment Compensation Act, and the responsibilities of physician and clinic employers thereunder. Assistance was rendered to other attorneys who asked the Society for information concerning the legal aspects of abortions, and the right of such groups as chiropractors to use the title "doctor," either directly or in a modified form.

Extended service was given in connection with claims of physicians for treatment of the indigent, either under the county or township system. Much confusion seems to exist in some localities as to the proper method of filing these claims either under the general poor relief law or under the Wisconsin General Hospital law. Forms were devised and submitted to county societies and physicians requesting assistance on this subject.

A subject of broad significance has been the right of the Board of Medical Examiners to regulate the licensing of foreign or immigrant practitioners. There has been some question concerning the power of the Board to require graduation from a reputable college, as it so requires in the case of local applicants. Legal counsel conducted a thorough study of this general subject.

Other inquiries of interest concerned the right of midwives to give prenatal care; duties and responsibilities of coroners; definitions of patent and proprietary medicines as that term is used in various statutes; free choice of physician under the Wisconsin statutes; the procedure necessary for a postmorten examination when the next of kin cannot be located to give permission; the availability of various assistance funds for medical care; the liability of medical societies under the Social Security Act.

Advice of legal counsel has also been required on the expulsion proceedings had in Milwaukee County against those members of the Milwaukee Medical Center, and in other expulsion inquiries that have come to the attention of the secretary.

MEDICAL DEFENSE

A. J. Patek, chairman, E. G. Ovitz, H. P. Bowen

All members of the House have doubtless read editorial and news comments in the Journal of the American Medical Association on the decision of the American Bar Association that the medical defense system of the Ohio State Medical Association constituted unethical practice of law and unauthorized practice of law. A summarization of the committee meeting before which this question was heard will be made on the floor of the House of Delegates. Legal counsel of our own Society was present.

As a result of this decision and the desires of our Society that there be no conflict with the canons of the American Bar Association, it is evident that our medical defense system as it now exists must be terminated. The committee recommends that it be terminated as of this date with respect to accepting any additional commitments, but that the funds be maintained intact to discharge any obligations of the system that may arise during the remaining months of the year and the two years to follow, with the provision that in each such case as may

arise, subject to the approval of the case by the Committee on Medical Defense, the member affected shall have complete right to select his own legal counsel.

The committee is aware of the concern of the practitioners of this and other states over steadily increasing rates in many instances for malpractice indemnity insurance. The House will recall that some years ago the secretary of the Society made special studies in this field. The only options and possibilities that suggest themselves to your committee at this time are immediate studies relative to:

(1) The basic situation with reference to the cost of malpractice indemnity protection;
(2) The possibility and feasibility of reduced rates through a group contract, available to members only, handled through the central office of the Society;
(3) The feasibility of a mutual insurance.

Your committee accordingly recommends that it be empowered to use so much of the funds as may be essential for making an early and complete study of these questions and others of a collateral nature that may arise, and that its recommendation therefrom be submitted to the Council, and, if approved, to either:

(1) A special meeting of the House of Delegates;
(2) The next regular session of the House of Delegates; or
(3) A mail ballot to delegates for the guidance of official action subsequently by the Council.

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

E. E. Kidder, chairman, W. M. Wochos, C. H. Christiansen

The work of the Committee on Health and Public Instruction has increased during the last year. In addition to the established efforts of this committee which include radio programs, weekly newspaper stories to daily and weekly newspapers, and Hygeia, the committee has had under advisement the subject of "statement inserts." This subject was referred to the Committee on Health and Public Instruction by the Council of the State Society. The committee has prepared and copyrighted several four-page leaflets which will be used by members of the Society to acquaint their patients with the services available through their family physician. These inserts were designed to be used by members of the Society at the time they mail their monthly statements to patients. Each pamphlet contains pertinent health information. A special bulletin was issued by the committee explaining the use of these inserts. Samples of the pamphlets were included in the bulletin. Inasmuch as this material has just been released by the committee, it is not prepared at this time to report on the use of this public health educational material by members of the Society.

Radio—The committee has continued to present its radio program over the state-owned station, WHA, Madison, three times each week on Tuesday, Wednesday and Thursday morning at 9:00 a. m. During the last year the committee has continued to record its programs on discs and has established a library of two hundred recorded health messages in the form of dramatic sketches, informal interviews, and monologues.

With this library of recorded programs available, the Society made arrangements with two additional radio stations to present this health information. The first station to be added to the circuit was station WHBY at Green Bay. The programs presented by WHBY are given at 6:45 each Tuesday, Wednesday, and Friday evening. Arrangements for this program were effected by the Woman's Auxiliary to the Brown–Kewaunee–Door County Medical Society. Following the addition of WHBY to the radio stations presenting the public health material of the committee, arrangements were made with station WEAU at Eau Claire. The program, as presented over WEAU, is conducted under the auspices of the Eau Claire–Dunn–Pepin County Medical Society and the State Medical Society of Wisconsin. As program material becomes available, the committee recommends that a further extension be made of the radio efforts of the Society.

News Releases—The committee has continued the policy of providing each daily and weekly newspaper in Wisconsin with a news story on germane health information. The committee recognizes and appreciates the cooperation received from the daily and weekly newspapers in the State in presenting this reliable information to their readers through the columns in their papers. The committee feels that this is a valuable public health contribution from the Medical Society and recommends that this educational effort be continued.

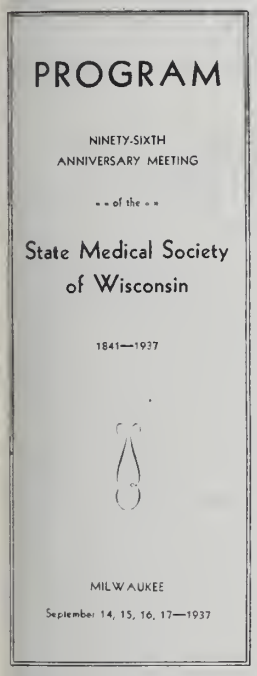
Hygeia—An annual subscription to Hygeia, the health magazine published by the American Medical Association, was distributed to each member of the legislature and to other citizens in Wisconsin who maintain a position of public trust. It is possible through this reliable health publication to inform those in public office of the fundamental health concepts and caution them against the quackery, fraud, and deceit of those who would attempt to treat the sick without educational background.

The committee has recognized the public health educational value of Hygeia. It has come to the

attention of the committee that many physicians do not avail themselves of the opportunity to provide their patients with authentic and reliable health information. Hygeia is recommended by the committee for the waiting room of every member of the Society.

COUNCIL ON SCIENTIFIC WORK

W. S. Middleton, chairman, E. J. Carey, J. A. Evans, H. A. Sincock, G. W. Krahn


PROGRAM

NINETY-SIXTH ANNIVERSARY MEETING

of the

State Medical Society of Wisconsin

1841—1937

MILWAUKEE

September 14, 15, 16, 17—1937

In accordance with the action taken by the House of Delegates at its 1936 meeting, the Council appointed a "Council on Scientific Work." This council is composed of Dr. William S. Middleton, chairman, dean of the Medical School, University of Wisconsin; Dr. Eben J. Carey, dean of the Marquette University School of Medicine; Dr. James A. Evans, of La Crosse; Dr. H. A. Sincock, of Superior; and Dr. George W. Krahn, of Oconto Falls.

The Council on Scientific Work is charged with the responsibility of preparing the scientific program and the scientific exhibit for the annual meeting of the Society, establishing a speakers' bureau for postgraduate medical education, and devising ways and means whereby postgraduate medical education may be brought to members of the Society.

At an early meeting of the Council on Scientific Work the chairman of the committee, Dr. William S. Middleton, assigned the chairmanship for the preparation of the scientific program for the annual meeting to Dr. James A. Evans of La Crosse. Dr. Eben J. Carey, who has had wide experience in the preparation and conduct of scientific and public health exhibits, was assigned the preparation of the scientific exhibit as well as the public health exhibit to be held at the same time as the annual meeting.

The council also has announced the establishment of a page to appear each month in the Wisconsin Medical Journal to be known as "Tested Therapeutics." This section of the Journal will make its initial appearance in an early issue of the Wisconsin Medical Journal and will be a regular feature thereafter.

The tasks which lie ahead of the Council on Scientific Work are numerous and expansive. The members have made great headway during the past year to secure an understanding of the manifold problems in scientific work which have been assigned to them. Their efforts during the past year will be evident in many years to come by improved scientific sessions and correlated efforts to make available to members of the Society every possible form of postgraduate medical education.

PREVENTION OF GOITER

A. S. Jackson, chairman, M. O. Boudry, F. D. Murphy, C. A. Harper, E. L. Sevringhaus, C. N. Neupert

There are now thirty-seven committees, representing the county medical societies, appointed by the presidents of the various medical societies for the study and prevention of goiter. Several of these committees have been actively at work on the program of prevention during the past year, a notable example being Fond du Lac where the results have been so successful that over 90 per cent of the children are now receiving preventive treatment. In a number of counties, preliminary surveys have been conducted and plans have been made to start an active campaign this fall. In still other counties where preventive measures were already in effect, the work has been continued and expanded. The state committee on the pervention of goiter met May 2, 1937, and sent the following report to the chairmen of the thirty-seven county committees:

1. The committee reiterates its suggestion that all expectant mothers should be given the equivalent of ten (10) milligrams or one-sixth (⅙) grain of iodine once a week during pregnancy. In the presence of an adenomatous goiter or of pulmonary tuberculosis, a patient should be observed at frequent intervals for possible harmful effects of the iodine.
2. All pre-school children starting at four years of age should be given five (5) milligrams or one-twelfth (1/12) grain of iodine once a week from September until June.
3. During the school year, the committee advises the use of iodine as a preventive between the ages of six and twenty-one years. Between six and ten years, give ten (10) milligrams or one (1) tablet of iodine each week. In children ten to twenty-one years of age, it is safe to give the equivalent of two (2) tablets of ten (10) milligrams of iodine each week.
4. When iodine tablets cannot be made available, the committee feels that there is no objection to the use of iodized salt in children. The tablet method, however, is preferable because of the accuracy of dosage.
5. The use of iodine is important not only to prevent goiter, but to prevent the end results of goiter such as cretinism and mental deficiency.

The state committee urges the committees of the various county medical societies to enlist the inter-

est of the county boards in appropriating funds to purchase iodine tablets for the children. The state committee feels that the local committees should supervise the purchase and the manner of distribution of these tablets, and that, whenever possible, the work should be carried on in cooperation with the public health authorities. The committee is hopeful that by September the majority of school children in the State will be receiving preventive treatment.

The committee is carrying on its work in cooperation with the State Board of Health and is appreciative of the assistance rendered by Dr. C. A. Harper, a member of the committee. At the suggestion of the chairman and with the approval of the Council, the committee has been enlarged to include the names of Dr. Carl N. Neupert, assistant state health officer, State Board of Health; and Dr. Elmer L. Sevringhaus of the University of Wisconsin Medical School.

MEDICAL LIBRARY SERVICE

Gladys Ramsey, Librarian

The Medical Library Service has enjoyed a very active year. This service is made available to all members of the Society to the end that they may have the very latest publications of medical literature containing scientific information. The journals which are received by the Society in exchange for the Wisconsin Medical Journal, and books received from the publishing houses for review are placed on the shelves of the Medical Library Service. There is no charge made to the users of this service, and members are strongly urged to form a habit of writing the Service for material.

The following statistics show the use made of the Medical Library Service for the last fiscal year:

July 1936–June 1937

Total requests	5,122
Total number of loans	13,815

Best Representative Month, March, 1936

Total requests	531
Total loans	1,675

There are 138 men in the State who take regularly through this Service from one to twenty-four journals each week, month, or quarter, as the journals are issued. They indicate at the beginning of the year the journals in which they are interested, make a deposit for postage and packing charges, and the journals are sent throughout the year.

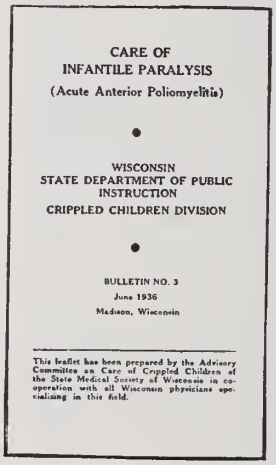
During the past four weeks the Service has been asked to furnish material on subjects such as bathing beach sanitation, blood sedimentation, carbon monoxide poisoning, chronic pulmonary osteoarthropathies, dislocation of the temporomaxillary joint, goiters and their prevention, gangrene secondary to arterial injury, hypertrophy of the male breast, hypertension, hemothorax, intestinal surgery to include resection of the small intestine with clamp and Murphy button; the results of resection from the viewpoint of physiology, adhesions as a result of intestinal surgery, undulant fever with nervous manifestations, whooping cough—its prevention, diagnosis and treatment.

The mine of periodical literature in the Medical Library contains 325 complete sets of medical periodicals beginning with volume 1, besides the many allied scientific journals which are available on the campus, and which may be drawn upon. Books and journals not on the campus may be readily borrowed from other medical libraries.

Lists of new book accessions are available on request.

THE ADVISORY COMMITTEE ON CARE OF CRIPPLED CHILDREN

J. W. Powers, chairman, A. T. Nadeau, C. M. Kurtz, H. K. Tenney


CARE OF
INFANTILE PARALYSIS
(Acute Anterior Poliomyelitis)

WISCONSIN
STATE DEPARTMENT OF PUBLIC INSTRUCTION
CRIPPLED CHILDREN DIVISION

BULLETIN NO. 3
June 1936
Madison, Wisconsin

This leaflet has been prepared by the Advisory Committee on Care of Crippled Children of the State Medical Society of Wisconsin in cooperation with all Wisconsin physicians specializing in this field.

The outstanding effort of this committee during 1936–1937 was a presentation on the subject of "Prevention of Disability," at thirteen postgraduate meetings.

In the Fall of 1936 Mrs. Marguerite Lison Ingram, director of the Crippled Children Division of the Department of Public Instruction, advised the committee of the availability of social security funds for postgraduate medical education relating to crippled children. At a special meeting of the committee a program was arranged to bring to the members of the Society, in their respective councilor districts, scientific information on the subject of infantile paralysis, scarlet fever, fractures of the elbow, acute osteomyelitis, rheumatic fever, and preventive procedures designed to decrease disability.

As reported previously in the Journal, the thirteen district meetings were well-attended. The physicians appearing on the program were drawn from the membership of the State Society. They contributed liberally of their time, effort and knowledge to the successful conduct of the postgraduate courses.

The Advisory Committee on Crippled Children has assisted the Crippled Children Division of the Department of Public Instruction in establishing procedure and general recommendations for the health services made available to crippled children in the orthopedic schools. The suggestions made by the Advisory Committee on Crippled Children have been carefully followed, and the assistance of the com-

mittee has been deeply appreciated by the director of the Crippled Children Division. The advisory committee recommended that the county medical society, in the district in which an orthopedic school was established, assist the school authorities through an advisory committee from the local county medical society. In each city where an orthopedic school has been established an advisory committee has been appointed by the local county medical society to assist the school authorities in the health problems which confront them. Through the guidance of the Advisory Committee on Crippled Children many of the pitfalls formerly encountered by the officials in charge of the orthopedic schools have been avoided.

At present the committee has before it, for consideration, suggestions for further clarification of the health problems encountered in orthopedic schools. The questions advanced to the committee by the director of the Crippled Children Division of the Department of Public Instruction are of such an involved nature that repeated conferences will be required in order to evolve a satisfactory solution to the questions advanced. The committee anticipates repeated conferences with the department during the ensuing year to assist in health problems which will be encountered.

The committee wishes to take this opportunity to acknowledge its appreciation to the advisory committees of local county medical societies which have assisted the orthopedic school officials, the physicians who participated in the thirteen councilor district postgraduate courses, and the Crippled Children Division of the Department of Public Instruction for the cooperation they have given the committee.

The members of the Crippled Children Division advised the committee that they felt that a pamphlet should be prepared for general distribution on the subject of infantile paralysis (acute anterior poliomyelitis). Accordingly the committee prepared such a pamphlet for the Division who in turn made wide distribution of the pamphlets.

The program prepared by the Advisory Committee on Care of Crippled Children, in cooperation with Mrs. Ingram, the director of the Crippled Children Division, was forwarded to the Social Security Board in Washington, D. C. This postgraduate medical educational program received such enthusiastic approval that officials in Washington immediately voiced their approval and announced their intention of inaugurating this type of professional postgraduate education to take place on a nationwide scale.

COMMITTEE ON NECROLOGY

The Council, as the Committee on Necrology, has the sad duty of reporting the deaths of the following physicians since the last anniversary meeting. Members of the Society are indicated by boldface type:

Amunson, Philip B. ---------- Mondovi
Barnett, James R., Jr. ---------- Neenah
Baumgarten, Solomon ---------- Milwaukee
Bemis, Edward A. ---------- Batavia
Bradbury, Edwin L. ---------- Neillsville
Brazeau, George N. ---------- Milwaukee
Cavanaugh, Thomas E. ---------- Wauwatosa
Christofferson, Peter J. ---------- Waupaca
Darby, George S. ---------- Brodhead
Davis, John J. ---------- Madison
De Sombre, Karl L. ---------- Fond du Lac
Eltinge, Richard L. ---------- Mendota
Fleek, John L. ---------- Brodhead
Fleming, William J. ---------- West Allis
Gaenslen, Frederick J. ---------- Milwaukee
Gaillardet, Louis P. ---------- Fairchild
Golden, Charles H. ---------- Wonewoc
Gregory, Arthur T. ---------- Mauston
Grinde, George A. ---------- Cumberland
Gunther, Otto T. ---------- Sheboygan
Helgesen, Elias J. ---------- Evansville
Hickey, Robert E. ---------- Milwaukee
Hogue, Gustavus I. ---------- Milwaukee
Hulett, Horace L. ---------- Milton
Kelly, Charles D. ---------- Blair
Kjelland, Jacob S. ---------- East Ellsworth
McGonigal, Mathew ---------- Loyal
McGrath, Edward ---------- Baraboo
McRae, John D. ---------- Chippewa Falls
Martens, William A. ---------- Milwaukee
Mehl, Hugo F. ---------- Milwaukee
North, Charles F. ---------- Beaver Dam
O'Connell, James E. ---------- Milwaukee
O'Neill, John J. ---------- Oshkosh
Ouellette, Clifford J. ---------- Oconto
Paschen, James G. ---------- Milwaukee
Peck, Walter W. ---------- Darlington
Pendergast, Thomas J. ---------- Milwaukee
Peterson, George E. ---------- Waukesha
Peterson, Neils A. ---------- Soldiers Grove
Pinch, James W. ---------- Milwaukee
Puls, Arthur J. ---------- Milwaukee
Regan, Eugene D. ---------- Milwaukee
Rice, Daniel S. ---------- Stevens Point
Rock, Arthur A. ---------- Milwaukee
Rothman, Lewis ---------- Wittenberg
Rupp, Paul H. ---------- Wauwatosa
Russell, Fred G. ---------- Milwaukee
Schallern, Bruno ---------- Ripon
Schloemilch, Albert ---------- Portage
Schnetzky, Oscar P. ---------- Princeton
Smith, Bryant ---------- Oconomowoc
Sutherland, Frederick E. ---------- Janesville
Taylor, Edward B. ---------- Milwaukee
Thielke, Gustave F. ---------- Wausau
Wasielewski, Frank S. ---------- Milwaukee
Webb, Harvey E. ---------- Milwaukee
Wegge, William F. ---------- Milwaukee
Whitehorne, Edward E. ---------- Vesper

DELEGATES TO A. M A.

J. Gurney Taylor, Joseph F. Smith, Gunnar Gundersen

The eighty-eighth annual session of the American Medical Association was held at Atlantic City from June 7–11 inclusive.

All three delegates from Wisconsin, namely, J. Gurney Taylor, Joseph F. Smith, and Gunnar Gundersen, were present at all sessions including the special sessions of the House. Two of the members had important committee assignments. J. Gurney Taylor, Milwaukee, was a member of the Reference Committee on Legislation and Public Relations; Joseph F. Smith, Wausau, was a member of the Reference Committee on Reports of Officers. Two of the alternate delegates, S. J. Seeger, Milwaukee, and R. G. Arveson, Frederic, were also present and in attendance at the sessions. The third alternate, C. W. Giesen, of Superior, was in Europe and consequently unable to attend.

The attendance at the Atlantic City session was 1,295 greater than the 1935 session, also held in Atlantic City, the high-mark up to the present time. Some 9,764 doctors registered their attendance. This is all the more remarkable when the fact is taken into account that in 1935, 303 visitors from Canada were present and these did not contribute this year to the total number; furthermore, the session was of significance due to the fact that an unprecedented number of visitors remained throughout the entire week.

The House of Delegates transacted a large volume of business ranging from affairs of science to those of government. These affairs commanded the attention of the House to such an extent that several extra sessions were necessary to finish the work. In addition thereto, committee work required the attention of the delegates far into the night.

In a brief summary of the activities it is quite impossible to cover all the details, and a careful study of the minutes of the meeting is necessary that the physicians may familiarize themselves relative to the numerous and serious matters which concerned the delegates. We recommend a careful study of the minutes by every physician interested in organized medicine. *(J.A.M.A.—June 19 and 26, 1937)*

The features of particular significance related to resolutions which would lead toward a change in the nature of the practice of medicine, a decision by the House supporting the previous action by the Board of Trustees indicating its desire and willingness to cooperate with the federal government in working out plans for the care of the indigent sick on direct request from the government. Senator James Hamilton Lewis of Illinois paid the House of Delegates a personal visit purporting to bring an authorized message from the President of the United States.

The Committee on Contraception presented a report of its work and this simple and dignfied report was unanimously adopted by the House of Delegates. According to its recommendation, the study of the entire contraception problems will be from a scientific angle and it places on the various councils the responsibility for examining the products used in contraception; furthermore it recommends that doctors familiarize themselves in regard to their legal rights and responsibilities in relationship to the prevention of conception. It recognizes the need for teaching the scientific aspects of both fertility and sterility, and it recommends that all contraceptive practice be conducted under medical control in regularly licensed institutions. Dr. Hans Reese, of Madison, on behalf of the neurological section, submitted a resolution covering this general subject.

The House of Delegates heard the reports of the officers and trustees of the Association in addition to those of several councils and bureaus and commended very highly these reports.

New resolutions recommended cooperation in securing effective driver's license laws in various states so as to aid in the prevention of fatalities in motor accidents. Another resolution recommended that provisions be made for an investigation of the teaching of osteopathy. It was recommended that this study be conducted by a nonpartisan and unbiased body. Recommendation was made to the Social Security Board that examinations for blindness be carried out only by doctors of medicine, competent in diagnosis and treatment of diseases of the eye. More extended inspection of the hospitals by the Council on Medical Education and Hospitals was recommended. According to another resolution, motion pictures in public and medical education and reviews and censorship of films for advertising promotion would be encouraged.

Following action by the House of Delegates, two new procedures were adopted which will definitely affect the work of the Association. These are as follows:

(1) A resolution recommending the development of a distinguished service medal with citation to be presented each year at the time of the annual session to a physician who has rendered such service for the advancement of the art and science of medicine.

(2) A resolution providing for the selection of a meeting place three years beyond the time of selection. Reasons for this change are to be found in the fact that the meetings of the Association have grown to be so large that there are but few cities in the United States with large auditoriums capable of housing the technical and scientific exhibits in addition to providing suitable halls for the individual sections. The number of such cities is limited and the demand on them is great, making it necessary to choose early in order to secure a time that will be satisfactory to the great number of physicians who now attend the annual sessions. This is illustrated by the fact that at least 7,500 visitors attended the motion picture clinic on syphilis. The scientific meet-

ings were attended by huge audiences. Capacity audiences attended the symposiums on neuropsychiatry, heard the papers on the use of sulfanilamide, and even attended many of the sectional meetings. More than 300 papers were read in the scientific sections.

One significant feature of the meeting at Atlantic City was the unusual interest which the meeting created on the national scene. The metropolitan press was well represented, particularly all the New York and Philadelphia newspapers as well as the Detroit *Free Press*, the Washington *Star*, and the Chicago *Tribune*, and many others who had individual correspondents and feature writers. Four men represented the Associated Press and there were many others from all the important press services, including the five reporters who shared the Pulitzer Prize in journalism this year. Of the national magazines, *Time*, *News Week*, and *Life* were especially represented.

The huge convention hall in Atlantic City amply took care of the scientific exhibit which has come to represent what is probably the most noteworthy of the many extraordinary features of the annual session of the American Medical Association. These exhibits have become of such value from an educational point of view that many physicians who come to the meeting devote most of their time during the session to visiting and studying these exhibits. The exhibits this year were of particularly fine quality and in number and quality surpassed any displays previously shown. A new high was reached in respect to appearance, attendance, arrangement, and in scientific value. It was literally necessary to drive the visitors out of the hall and on several occasions it was necessary to turn off the lights in the evening in order to evacuate the building.

Most of the large clinics and educational institutions in the country were represented in the scientific exhibit and some were represented in the commercial exhibit or what is known as the technical exposition. Exhibitors in the technical exposition have learned of the increasing importance in making the exhibits educational. Of particular interest to Wisconsin physicians was the fact that the silver medal was awarded to Eben J. Carey, dean and director of the department of anatomy, Marquette University School of Medicine, Milwaukee, for his exhibit illustrating his original investigation on "Intrinsic Wave Mechanics of the Nervous and Muscular Systems."

Dr. J. Gurney Taylor, for many years delegate from Wisconsin, was appointed by President J. H. J. Upham to the Council on Scientific Assembly to fill the unexpired term, ending in 1939, of Dr. Irvin Abell of Louisville who had been elected president-elect of the American Medical Association.

Of particular interest to the individual states was the action taken by the House in respect to rural medical service. This followed as a result of a resolution from the American Farm Bureau directed to the Legislative Committee of the American Medical Association which asked the American Medical Association to assist the American Farm Bureau Federation in evolving some definite workable plans that will help the farm people to work out their problems respecting medical care.

The Committee on Legislative Activities as well as the Reference Committee on Legislation and Public Relations felt that this was a very important communication expressing the attitude of one of the most influential farm organizations in the United States, and recommended that the House go on record urging local county medical societies to cooperate closely with local farm bureau organizations for the purpose of adjusting costs of medical service in a manner satisfactory to physicians and rural communities which they serve. It appears that because of a wide diversity of factors, no uniform plan of distribution of medical service in rural communities can be adopted. It was, therefore, recommended that county medical societies, wherever the necessity exists, cooperate with local organizations in providing, supplementing, reorganizing, or modifying good medical services to the rural population.

The annual conference of secretaries of constituent state medical associations was indorsed. In event of an expectant absence of a state secretary from these gatherings, provision should be made to send the duly authorized alternate, as the loss to a given state society cannot be atoned for until the following year.

The election of officers this year was particularly harmonious, no contest developing over any office. The following officers were elected:

President-elect: Dr. Irvin Abell, Louisville, Ky.
Vice president: Dr. Junius B. Harris, Sacramento, Cal.
Secretary: Dr. Olin West, Chicago, Ill.
Treasurer: Dr. Herman L. Kretschmer, Chicago, Ill.
Speaker of the House of Delegates: Dr. Nathan B. Van Etten, New York
Vice speaker of the House of Delegates: Dr. Harrison H. Shoulders, Nashville, Tenn.
Trustees (to serve for a period of five years): Dr. Arthur W. Booth, Elmira, N. Y.; Dr. Roscoe L. Sensenich, South Bend, Ind.

Dr. Rock Sleyster, having served for two periods, or ten years, on the Board of Trustees, was not eligible for re-election due to statutory limitation. Doctor Sleyster was chairman of the Board of Trustees of the American Medical Association at the time of the expiration of his term. Doctor Sleyster's popularity was attested to by the House by a rising vote of thanks in recognition of his many years of conscientious and devoted service in the interests of organized medicine, and the American Medical Association in particular.

San Francisco, California, was chosen as the place of meeting for the 1938 annual session.

The Local Committee on Arrangements handled the meeting in an unusually fine manner and the

entertainment offered through the Woman's Auxiliary and through the Local Committee on Arrangements was exceptional. The dinner to the House of Delegates presented a galaxy of famous figures in the field of medicine. Excellent entertainment was interspersed among the addresses. The opening general meeting attracted an audience of approximately 7,000. To Atlantic City rightfully belongs the name—"The Convention City of the World."

COORDINATION OF MEDICAL SERVICES

J. F. Smith, chairman, F. E. Butler, S. E. Gavin

This committee completes now its fourth consecutive year. Four years ago the House of Delegates created a special committee to cooperate with the authorities of the Wisconsin General Hospital to coordinate its efforts with the physicians in active private practice.

During the last year the committee has held several meetings to discuss problems which have been raised by members of the Society relative to the services rendered by the physicians in attendance at the Wisconsin General Hospital. The committee has enjoyed the cooperation and opportunity to discuss the problems of the private practitioner with this committee from the Wisconsin General Hospital. The committee has urged and welcomed suggestions from members of the Society pertaining to the work at the Wisconsin General Hospital.

Dr. William S. Middleton informed the committee during the last year that he had requested that the staff of the Wisconsin General Hospital serve only as a friend of the court and an independent examiner for the Industrial Commission.

The Committee on the Coordination of Medical Services discussed with the committee from the Medical School the admittance of patients to the Wisconsin General Hospital. The question considered by the committee was the admittance of pay and part-pay patients. Both committees were agreed upon the principles governing the admittance of pay and part-pay patients, but the question which was before the committee and which necessitated further enlightenment was the question of the mechanics of the operation of the regulation.

It was mutually understood by the committees that emergency cases necessitate admittance without the customary formality of reference and admittance forms. Nonemergency cases which apply for admittance to the Wisconsin General Hospital without reference from the family physician, are to be admtited only by the executive committee. The exceptions to this rule in regard to pay and part-pay patients are as follows:

(1) Those cases referred by the family physician;

(2) Legislators;

(3) Administrative committees;

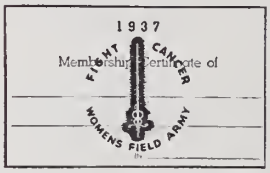
(4) Emergency cases;

(5) Cases for which staff members cared for patients on the basis of long-standing previous care under the old family-relationship clause.

New problems arise in relation to the services rendered by the Wisconsin General Hospital. As these new questions arise they will be placed before the committee for a discussion by those in charge of the services of the hospital and members of your Committee on the Coordination of Medical Services.

REPORT OF THE CANCER COMMITTEE

W. D. Stovall, chairman, H. T. Barnes, D. J. Twohig, E. E. Evenson, D. L. Dawson, R. L. MacCornack, C. G. Richards, Gideon Benson, G. E. Moore, F. Eigenberger, Paul Doege, F. B. McMahon, A. C. Taylor, Frank Weeks



The Cancer Committee has been engaged this year in organizing to cooperate with the American Society for the Control of Cancer in an extensive lay educational program. The arrangements for this program were planned at a meeting of the Committee held in Madison in February 1936 with representatives of the American Society. At this meeting it was agreed that the Cancer Committee of the State Society would be the executive committee of the Women's Field Army.

Public education involves considerable responsibility as to distribution of authentic and authoritative information. It was obvious to all that the Women's Field Army would need the hearty cooperation of the medical profession to secure this kind of information. Then too the matter of bringing this information to the public requires its presentation by someone to whom the public turns when diagnostic and treatment problems for the recognition and cure of cancer are involved. With this as a starting point, the following organization was agreed upon:

I. Executive Committee.

The functions of this committee are:

1. The selection of literature to be distributed to the public.
2. The approval of a state program for the control of cancer. The personnel of this committee are the members of the Cancer Committee of the State Medical Society and Mrs. F. H. Clausen, state commander of the Women's Field Army of Wisconsin. Mrs. Clausen has full charge of the organization of the Women's Field Army.

To accomplish the purpose of this organization it was necessary to bring as many physicians and as many women in the State into active participation as possible. To accomplish this the following organization was planned:

II. Councilor District Cancer Committees.

1. Chairman: The member of the State Society's Cancer Committee from the district.

2. Members: Chairman of county medical society cancer committees, vice commander for the councilor district and captains of the Women's Field Army in the counties of the district.

III. County Society Cancer Committees.

A chairman, and medical members appointed by the president of the county medical society. This committee, together with the lieutenants of the Women's Field Army, constitute the Women's Field Army Cancer Committee for the county.

In December the committee again met. At that meeting Mrs. Clausen reported the progress she had made in organizing the Women's Field Army and submitted the names of a number of women for district commanders (vice commanders), county captains and community lieutenants. The American Society for the Control of Cancer set the week beginning March 21 for the opening of the drive for membership in the Women's Field Army, the membership fee being one dollar.

In order to be successful it was necessary that some money be available for the distribution of literature, the organization of a speakers' bureau, the circulation of lanterns among the speakers and many other items that need not be detailed here. The Council of the State Medical Society by request of Mr. Crownhart had authorized him to tender to the Women's Field Army secretarial and clerical help and to extend credit for postage and other items of expense incident to the drive. Without this assistance the membership drive would have failed. The following is a list of services performed by the office staff of the State Medical Society. While this list will convey some idea of the amount of work done, it does not account for much of the constructive work done by Mr. Larson in organizing the campaign.

Personally-typed letters to the secretary and president of each county society to develop the speakers' bureau	200
Eleven-page mimeographed talk, "A Public Address on Cancer" prepared and distributed	800
Speakers' Handbook, for Women's Field Army officers, listing 350 speakers, officers of Women's Field Army	800
Distributed "What Everyone Should Know About Cancer"—a pamphlet	500
Distributed "Cancer, A Challenge"—a pamphlet	500
Preparation of mimeographed "Bulletin to Speakers" including mailing	300
Prepared, addressed, and mailed a copy of the handbook with bulletin to Women's Field Army officers explaining the speakers' handbook	350
Three miscellaneous bulletins addressed and mailed to the officers of the Women's Field Army	1,100
Bulletin to secretaries and presidents explaining the Women's Field Army (Included: Speakers' book; talk, and two pamphlets)	150
Three news releases to all daily and weekly newspapers in State	2,100
Prepared, addressed, and mailed bulletin to speakers containing material from State Board of Health	350
Distributed membership certificates	60,000
Distributed danger signals, buttons, etc.	75,000
Preparation of return post card and bulletin, survey of speakers	350
Letters of acknowledgment to the officers of the Women's Field Army for remittances (for the treasurer, Mr. Coe).	
Scheduling, servicing, and maintaining cancer film strip projectors (letters, telegrams, calls, etc.).	
Arrange bank deposits daily for Mr. Coe.	
Use of State Medical Society addressograph, mimeograph and office equipment and stationery.	

The plan of the campaign was as follows:

1. Arrangement for public talks by officers of the Women's Field Army.
2. Public address by physician.
3. Radio talks.
4. News articles.
5. Exhibits.

1. Organization of a speakers' bureau. It was clear that no small group of physicians would be able or have the time to cover the entire State speaking to women's organization both state and local. The organization of a large group of speakers was necessary. Members of county societies responded cordially to a call for speakers, and within a short time over three hundred had volunteered from all parts of the State.

2. Material for speakers. In order to insure uniformity it was necessary to have all speakers presenting the subject of cancer from the same viewpoint and expressing the same opinions. This was accomplished by preparing a folder which contained a full manuscript for a public address, and two pamphlets: "What Everyone Should Know About Cancer" and "Cancer a Challenge." The public health address was designed to be used as prepared or the speaker could use it as a model by which he could prepare his own talk from the material in the folder.

3. Film strips. In addition to the material for the preparation of an address, film strips and projection lanterns were made available for those who wished to either talk from slides or wished to use pictures in connection with their talk. This equipment was used extensively and required part of the time of one girl in the office to see that they were maintained and kept in circulation and that no appointments were missed.

4. Exhibits. This material was prepared to depict the difference between early and late cancer and to point out the importance of early diagnosis. It was composed of three large charts on rollers and pictures which could be hung for display purposes in booths, or on walls. Three sets of this exhibit were prepared.

5. Radio talks. Governor La Follette gave a radio address Sunday evening, March 21, and issued a proclamation naming that week as cancer week. Your chairman and Mrs. Clausen gave a talk over WTMJ. Marquette University gave up one of its regular broadcasting periods to a broadcast on cancer by Dr. F. B. McMahon; and the State Medical Soceity used one of its periods on WHA for the same purpose.

In spite of the short period allowed for such an extensive campaign, the results were highly satisfactory. Over eight thousand women took out membership and over ten thousand dollars were collected. Wisconsin stood second in the Nation in the amount of money raised. Seventy per cent of the money collected remains in the State to be used to finance the program for this year and to carry out another campaign for membership next spring. The remaining 30 per cent has been remitted to the American Society for the Control of Cancer.

Following the campaign week a meeting of the Executive Committee of the Women's Field Army and the Cancer Committee of the State Medical Society was held in Madison. At this meeting an Administration Committee was appointed to approve urgent matters between regular meetings of the whole committee. Mr. J. H. Coe's election by mail ballot was approved. Mr. Coe is vice president of the First National Bank of Madison and a banker of long experience. The members of the Administrative Committee are the state commander of the Women's Field Army, Mrs. F. H. Clausen, one other member of the Executive Committee, Dr. D. J. Twohig, and the chairman of the Executive Committee. This committee has had one meeting to approve the budget for the coming year and the expenditures for the membership campaign.

The members of the committee take this opportunity to thank those who cooperated with them in their work. Members of the Society have given most generously of their skill, time, and efforts in making possible this tremendous undertaking of lay education on the subject of cancer.

PRELIMINARY REPORT, COMMITTEE ON MENTAL HYGIENE AND INSTITUTIONAL CARE

A. W. Bryan, chairman, J. M. Conley, J. L. Garvey

Your Committee on Mental Hygiene and Institutional Care has lost none of its interest in the problems under its special consideration. It has not, however, visited as many of the institutions in the State as it did during the first year of its work.

It has had the satisfaction of seeing many of its recommendations of last year substantiated by the Subcommittee on Health and Disability of the Citizens' Committee on Public Welfare and included in the recommendations submitted to the Governor by that body. It feels that its work may have been of some real value to the Committee on Public Welfare and perhaps has contributed something to the background of proposed legislation based on the report of the Committee on Public Welfare and introduced as bill 914, A in the 1937 session.

Having expressed our opinion in as much detail as expediency permits at this time, regarding our state and county institutions for the care of the insane, our attention has turned to matters of mental hygiene, or preventive psychiatry. In approaching so involved, intangible, and yet so important a subject as this, it seems advisable to attempt to obtain the views of many people within the State who have had experience in this field. To this end two meetings were held at the Madison Club, the first on January 24, and the second on June 6 of this year. Among the twenty-seven people who attended these meetings were Dr. Gilbert E. Seaman, superintendent of Winnebago State Hospital; Mrs. Katharine Sullivan, member of State Board of Control; Dr. Peter Bell, director of psychiatric field service, State Board of Control; Dr. Esther de Weerdt, president, Wisconsin Society on Mental Hygiene; Professor C. F. Gillen, well-known sociologist and criminologist, University of Wisconsin; Miss Pauline Camp, supervisor of guidance and special education, Madison Public Schools; Mr. J. W. Rodewald of the National Youth Administration; Dr. Mabel Masten, assistant professor of neurology and psychiatry, University of Wisconsin Medical School and Drs. Sara Gieger, Gilbert J. Rich, and Ralph D. Bergen, of Milwaukee, all well known to you, as well as to members of this committee.

Some of the things brought out at these meetings were the following:

(1) That the control of mental hygiene must rest largely with the medical profession with the help of public administrators, psychologists and social workers;

(2) That since the majority of cases of mental disease and delinquency begins in juvenile life, and since the direct approach to the child through the family is often difficult, the approach through the school systems is perhaps the most important;

(3) That the training and employment of an adequate group of workers is most important;

(4) That it is important to make a clinical inventory of the inmates in representative institutions, especially smaller county asylums, in that such a research will go far in establishing the real importance of recommendations based on more cursory surveys;

(5) That in view of limitations of funds, personnel, and legislative uncertainties, progress will be slower than the more enthusiastic may desire, but definite progress is being made.

On June 17 the chairman of this committee had the pleasure of addressing the annual meeting of the Association of Wisconsin County Asylums at Green Bay. He was greatly encouraged by their growing appreciation of more adequate medical service and hospital facilities. Dr. Grover Kempf of the National Mental Hygiene Society, New York, who is at present conducting an investigation of our unique county asylum system, was present at this meeting. We hope to have further association with him during his stay in this State and to profit by his great experience in this field.

By the time of our own annual meeting at Milwaukee in September we hope that the clinical investigation of a typical Wisconsin county asylum will be a matter of record for your consideration.

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

A. E. McMahon chairman, A. E. Rector, A. J. McCarey

Proposals for cooperative medicine. Legislative efforts in this direction met with decisive defeat in the last session of the legislature. This does not mean, however, that proponents of the cooperative idea as applied to the delivery of medical service have abandoned the struggle. Similar unsound measures undoubtedly will be introduced at the next legislative session unless there is a totally unexpected change of attitude on the part of certain foundations outside of the state of Wisconsin, and certain groups within the State. These seem determined to launch some scheme for cooperative medicine in Wisconsin. It is dangerous to underestimate the ability of the cooperative proponents.

There is now a proposal to care for the clients of the Resettlement Administration by making loans to these people for prepayment for medical services. It must be pointed out that the Resettlement Administration is not an emergency measure, but is intended to function for a long time, probably years. It is the opinion of this committee that any cooperative proposal as yet endorsed by Resettlement Administration officials for the delivery of medical service to their clients, will, if accepted or approved by the medical profession, serve as an entering wedge, and we will find ourselves compelled to accept the addition of other groups.

This subject will require constant study either by this committee or by a special committee, if it is thought advisable to create one. So far as the Resettlement program is concerned we recommend continuous contacts with the Administration officials by the officers of the State Medical Society, so that all proposals may be thoroughly scrutinized and discussed.

With increasing economic recovery, already there is, and probably will continue to be, a return to sane thinking on the part of the general public. If this be true, there will be no public demand for cooperative medicine or health insurance on any large scale. We must not forget, however, that the recent depression fostered a dependent attitude in millions of people, and in the event of another economic depression, which is entirely probable within a few years, this dependent spirit will again rise to the surface, and unless we are well prepared to meet it, we undoubtedly will have to accept a scheme or schemes of so-called health insurance and cooperative medicine or both, which will result in mediocre medical service and increased public health hazards.

We, therefore, recommend that the State Medical Society, through its officers and committees, work unceasingly on this problem.

Professional bureaus owned and operated by county medical societies for the collection of physicians' accounts and distribution of credit information to subscribers. The committee has considered this subject and feels that agencies of this kind wherever established should (1) be fully owned and controlled by the county medical society, and (2) that all policies of the bureau should be determined by the county society. It is the feeling of the committee that in order for a bureau to be successful it should have a membership of at least twenty-five, that the manager should be employed on a salary basis with only a small commission on accounts collected. A properly-conducted bureau is of great value in that it teaches patients to regard proper bills for medical services as obligations which must be met. It retains their good will, and tends to prevent the accumulation of old accounts in physicians' offices which generally mean lost patients.

Physicians' claims against estate of deceased patients. A bill for medical service during the last illness is at present a preferred claim against the estate of the deceased. However, in numerous instances the funeral costs, legal and administrative costs, so deplete the estate that there is nothing left with which to pay any part of the physician's claim. This committee recommends that this subject be studied by the Committee on Public Policy, with the view perhaps of recommending legislation to provide a prorata consideration of physicians' claims along with the claim of undertakers and the administrators.

Office leases. The committee recommends to members that they include an option in their leases permitting the physician's widow to continue the lease on space or property rented by the deceased physician.

Sickness insurance publications. It seems evident that for the next few years the subject of sickness insurance will be constantly before the public

through one agency or another. We feel that it behooves the State Medical Society to make available to the public proper information on this subject, and we recommend that a pamphlet be prepared dealing with sickness insurance, written in a simple, easily understood manner and of not too great length, for distribution to the public by physicians in their own offices or by such other means as may seem advisable.

Hygeia. In the medical profession we hear considerable discussion about "educating the public," and in this connection the committee was surprised to learn that many physicians do not keep the magazine Hygeia on their waiting room tables. We feel this magazine is one of the best means of education we have at our command, and strongly recommend that all physicians keep Hygeia available for their patients' perusal.

Compensation insurance panels. At the 1936 session of the House of Delegates there was referred to this committee, the consideration of complaints regarding insurance companies, especially as to their practice in withholding a physician's name from their panels. The committee realizes there are occasional causes for complaint, and we feel this subject should be referred to, and studied by, a special committee appointed by the Executive Committee of the Council to confer with representatives of insurance companies.

Employment of public health field worker or "contact man." It is the belief of this committee that the public health would be fostered, and the economic status of the physician improved by the creation of a department by the State Medical Society employing a contact man or field worker, to assist and advise physicians on public health matters, and office procedure. We believe this idea has great merit and great possibilities for development, and if it meets with the approval of the House of Delegates, the committee will study the subject further with the hope of developing a feasible plan for carrying on this activity.

It is the further belief of this committee that future efforts in immunization, vaccination, and other preventive measures should be directed toward the preschool child. The reason for this recommendation is found in the fact that approximately 50 per cent of the deaths from diphtheria, smallpox, and similar diseases occur before the child reaches school age. The committee highly endorses the action taken by the Council in urging the State Board of Health to address a letter to each mother six months after the birth of her child, recommending that every possible effort be made to have the child examined, immunized, and vaccinated by the family physician.

COMMITTEE ON OFFICE PROCEDURE

C. D. Neidhold, chairman, T. C. Abelmann, T. C. Hemmingsen, H. M. Caldwell, Rush Godfrey, A. C. Radloff, Robert Krohn, R. C. Cantwell, F. A. Marrs, G. W. Beebe, J. W. McGill, R. E. Fitzgerald, E. G. Ovitz

In accordance with the action taken by the House of Delegates at their 1936 meeting, the Speaker of the House, in cooperation with the councilor of each district, appointed thirteen members of the Society to serve on this committee.

The committee realized the enormity of the problems which were before it and agreed that the first problems requiring solution would be:

(1) The establishment of some medium whereby assistants in doctors' offices might be better trained to act as secretaries to the doctors;

(2) The placing of information before members of the Society so that they might be better able to collect the new accounts and old accounts of from 90 to 120 days;

(3) The necessity of a survey of the society-owned and operated collection and credit bureaus.

The work of this committee could not go forward as rapidly as desired because of the heavy demands on time and effort of the office of the Society by legislative demands and increased activity in other branches of the Society's work.

The committee feels that the work which was assigned to it by the House of Delegates has not been completed and recognizes that there is much that can be accomplished by the committee through future conferences. The committee recommends that this committee of the House be continued.

THE SECRETARY'S ACKNOWLEDGMENT

The reports herein presented cover but in summarized form the official efforts of officers and members and committees during the ten months that have elapsed since the last annual meeting of the Society in September. In some instances these reports will be supplemented on the floor of the House and on that occasion a special report of the secretary will be presented on the subject of delivery of medical service.

The secretary wishes to extend to the whole membership, as well as to officers and committees, his deep appreciation for that outstanding and generous aid, advice and cooperation which alone has brought to the Society such success as it has enjoyed in attaining its objectives during the past ten months. He desires to make further acknowledgment of an office staff that has worked untiringly and without hours to the end that the work of the Society might be faithfully and fully discharged. The staff is a limited one at the best and without such *esprit de corps* important undertakings could not have been brought to successful conclusion.

The secretary feels that the membership should be made aware of the fact that throughout his year of office President Gavin has made tremendous sacrifices in his untiring efforts to assist officers and committees in attaining those objectives outlined by the House. The president has given substantially every Sunday of the year in addition to attendance upon a large number of meetings of county and district societies. Possibly no one but those in the central office have any conception of the demands upon the president which Dr. Gavin has filled so completely and fully.

Respectfully submitted,
J. G. CROWNHART, *Secretary.*

Technical Exhibitors At The Milwaukee Meeting

Thirty-five firms will exhibit with the Society in the technical exhibit section in Walker and Juneau halls in the Milwaukee Auditorium. A short description of the contents of the booths is contained in the sections below. Visit the exhibits.

A. S. Aloe Company

A. S. Aloe Company, in booth 22, will display a general line of surgical instruments and equipment for the physician and hospital. The new Aloe Short-Wave Diathermy, the Elliott Treatment Regulator, the new de Bakey blood transfusion instrument and other specialties will be featured. Messrs. R. E. and R. G. Girard, Aloe representatives, will supply those interested with brochures on Aloe Steeline, the most modern creation in physician's fine treatment room furniture.

The Newest Supplies By H. G. Fischer and Company

The latest Fischer model of short wave, x-ray and other apparatus, to be exhibited and demonstrated by H. G. Fischer and Company, will interest physicians because of their many unique features of design and performance. The complete Fischer line includes shock-proof x-ray apparatus, short wave units, combination cabinets, galvanic generators, ultraviolet and infra-red lamps, tissue-cutting and other units, and accessories and supplies. Fischer apparatus has been recognized as highest quality for more than twenty-five years. Physicians attending the convention are invited to ask for demonstrations of models in which they are interested or to consult with Fischer representatives regarding technics made available by Fischer apparatus.

Latest Surgical Instruments Featured

V. Mueller and Company's modern surgical instruments and equipment will be displayed at booth 29.

Maryan colposcope for diagnosis of pre-invasive carcinoma of the cervix, Herb–Mueller Ether-Vapor suction machine, Mueller bone surgery engine and accessories, a complete line of Latex catheters, drains and urological instruments, and many surgical items of unusual value will be demonstrated.

Jones Metabolism Equipment Company

Be sure to stop at booth 24 when you are visiting the technical exhibits and get a few very interesting and educational facts on the New Jones Motor Basal unit.

It is Council-accepted, guaranteed for life, contains no water, and embodies many exclusive features which will interest you.

Surgical Instruments On Display

The Boehm Surgical Instrument Corporation will exhibit recent developments in electrically-lighted surgical instruments, cystoscopes, resectoscopes, bronchoscopes, rectal instruments, and their complete line for every orifice of the body.

General Electric X-Ray Corporation

Physicians interested in the human heart will have an opportunity of inspecting General Electric's new light-weight, low-priced instrument which brings accurate, dependable, and economical electrocardiography within the financial reach of every doctor. This splendid apparatus features the exhibit of the General Electric X-Ray Corporation in booth 13. Messrs. McIntosh, Victor and Dorschel of the corporation's Wisconsin staff will be in attendance.

Books For The Library

W. B. Saunders Company, publishers, booth 20, will exhibit a complete line of their books. Of outstanding importance will be the new Warbasse–Smyth three-volume work on "Surgical Treatment." This work has been entirely remade and covers all kinds of treatment for every surgical condition met with in general practice. Other new books include Tuft's "Clinical Allergy," Jackson's "Diseases of the Larynx," Buie's "Practical Proctology," new editions of Cecil's "Medicine" and of Bastedo's "Materia Medica." Then, of course, there are such standard works as Bickham's "Operative Surgery," Curtis' "Obstetrics and Gynecology," and Christopher's "Textbook of Surgery" and "Minor Surgery."

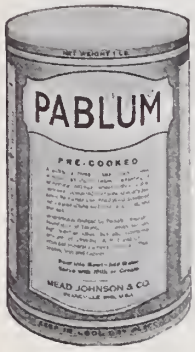
Learn Value Of Horlick's Malted Milk

You are cordially invited to visit the Horlick's Malted Milk Corporation exhibit in booth 25. Your attention is drawn to the special advantages of Horlick's malted milk as a nutritious, easily digested food-drink, often acceptable when no other food can be tolerated. Its special value will be pointed out—

1. For infant feeding;
2. For growing children;
3. For nursing mothers;
4. For the undernourished;
5. For the sick, especially in fever and ulcer diets;
6. For the convalescent;
7. In sleeplessness.

Philip Morris Cigarettes

Philip Morris and Company Ltd. Inc. will demonstrate the method by which it was found that Philip Morris cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than ordinary cigarettes in which glycerine is employed.



Mead Johnson and Company

Representatives of the company will be prepared to discuss a number of recently introduced products in the vitamin field and the general field of nutrition, as well as a number of new services. It is always the plan and desire of the company to have something new and interesting to discuss with its physician friends at this annual meeting.

All Lederle Products To Be Displayed

Lederle Laboratories, Inc., will exhibit in booth 36 a complete assortment of their biological and pharmaceutical products, featuring specific type antipneumococcic sera; Neufeld type determination sera; concentrated solution liver extract in 1 cc. vials; highly concentrated cod liver oil products. Literature and display packages of all Lederle products will be available.

Opportunity To Discuss Your Allergic Problems

The Arlington Chemical Company, Yonkers, New York, is featuring its proteins and pollens for diagnosis and desensitization. Especially featured are the one dollar diagnostic pollen outfits and the special $25 and $35 diagnostic protein outfits. Dr. J. H. Frazer, medical director, will be in charge at the booth and will be pleased to have any of the Wisconsin physicians call and discuss their allergic problems.

Hurley X-Ray Company

In booth 11, next to the registration booth, the Hurley X-Ray Company will display some of the latest shockproof Picker–Waite x-ray units and accessory items, together with Burdick short wave diathermies, electro-surgical units, ionization equipment and light therapy. Other accessory items of interest will be included in the exhibit.

Physicians' and Surgeons' Supplies

Booth 21 will be occupied by Arthur H. Neumann, Inc., physicians' and surgeons' supply house. Arthur H. Neumann and Glen F. Nonhof, officers of the firm, will be on hand to meet you personally. See our display of office furniture, equipment, instruments, and Mulford Biologicals.

Full Line Of Books On Exhibit

The C. V. Mosby Company will exhibit its complete line of medical publications. Visitors attending the convention are cordially invited to look over the new synopsis books; Meakins' "Practice of Medicine"; Horsley–Bigger's "Operative Surgery"; Titus' "Management of Obstetric Difficulties"; and other new Mosby publications.

New Digest Shown

The busy, progressive physician will be interested in the new "Digest of Treatment," published by J. B. Lippincott Company (booth 3).

The "Digest of Treatment" is pocket-sized and contains from forty to forty-five digests of articles on treatment culled from over two hundred medical journals published in various parts of the world. It was first shown at the American Medical Association meeting in Atlantic City, and the large subscription list, which continues to increase, assures us that a real need is being filled by "Digest of Treatment."

United States Hospital Supply Company

United States Hospital Supply Company of Minneapolis asks you to visit booth 1, where they are displaying items of interest to the medical profession, featuring the proved items of the past and the new items and developments in the surgical, supply, and physiotherapy fields.

United States Standard Products Company

Our Wisconsin representatives will appreciate seeing you at our exhibit in Milwaukee, booth 12, sometime during the meeting of the State Medical Society.

Squibb To Show Complete Line

Physicians attending the meeting of the State Medical Society of Wisconsin are cordially invited to visit the Squibb exhibit in booth 6.

The complete line of Squibb's vitamin, glandular, arsenical and biological products and specialties, as well as a number of interesting new items, will be featured.

Well-informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

The Page Milk Company

The Page Milk Company will feature Page vitamin D evaporated milk, an evaporated milk developed especially for the pediatrists' infant feeding work, yet suitable for general home use.

Kelley-Koett Manufacturing Company

In booth 34 Keleket will exhibit a complete self-contained x-ray unit offering facilities for fluoroscopy, radiography and Potter Bucky diaphragm radiography. This complete outfit features the latest shockproof design and occupies a limited floor space that makes possible installation in practically any area.

The exhibit will contain other new developments in x-ray equipment as well as a large and attractive display of x-ray films.

Representatives in attendance will be pleased to answer any questions concerning equipment or discuss any matters pertaining to x-ray.

Gerber Products Company

Gerber's cordially invite you to stop and see their two new products, Strained Apricot–Apple Sauce and Strained Liver Soup with Vegetables.

Gerber's have two types of literature, some for distribution to patients and some for professional use only. Samples of the foods and the literature for examination will be sent to registrants at the booth.

Scanlan-Morris Company

Scanlan–Morris Company will exhibit the famous surgical ensemble consisting of the Scanlan–Balfour operating table and the Operay Multibeam light with swivel offset hanger. Twin-filament illumination by Operay Multibeam and Operay Surg-O-Ray will be demonstrated. An all-automatic electric instrument sterilizer for physicians' offices and hospital use will also be available for inspection.

Merck amd Company, Inc.

Cebione—Synthetic vitamin C.
Mecholyl—Stimulant of parasympathetic nerves.
Vinethene—Rapidly acting inhalation anesthetic for short operative procedures.

These preparations are on exhibit at the Merck booth, as are also the older established Merck medicinal specialties such as Tryparsamide, Arsphenamines, Erythrol Tetranitrate, Digitan and Stovarsol.

An Educational Exhibit

The Carnation Company invites you to visit booths 18 and 19, where you will see the seven important steps in the production of irradiated Carnation milk presented by means of animated illumination. The methods used in testing and protecting the quality of Carnation milk will also be demonstrated and explained.

Medical Protective Service

The Medical Protective Company is represented at booth 14 where you are invited to call. Medical Protective service is an institution of the medical profession, whose legal liability problems we have concentrated upon for thirty-eight years. Bring your professional liability questions and problems to booth 14.

Mellin's Food On Display

The proportion of maltose and dextrins in Mellin's Food, the protein and mineral content and the favorable effect of Mellin's Food on the digestibility of milk are distinctions that commend Mellin's Food as a modifier of milk for the feeding of infants and for the preparation of nournishment for adults requiring a restricted diet. Physicians are invited to call at booth 30 to discuss their feeding problems with us.

Newest Publications To Be Featured

Lea and Febiger will exhibit at booth 26, under the direction of Mr. E. Tickner, the following new works: Fishberg's "Heart Failure," Atkinson's "The Ocular Fundus," Brahdy & Kahn's "Trauma and Disease," Davidoff & Dyke's "Normal Encephalogram," Davis' "Neurological Surgery," Levinson & MacFate's "Clinical Laboratory Diagnosis," Mattice's "Chemical Procedures," Rowe's "Clinical Allergy," Saxl's "Pediatric Dietetics," Werner's "Endocrinology," Wesson & Ruggles' "Urological Roentgenology" and Boyd's "Introduction to Medical Science." New editions will be shown of Bridges' "Dietetics," Cabot's "Urology," Cushny's "Pharmacology and Therapeutics," Gifford's "Ocular Therapeutics," Gray's "Anatomy," Holmes & Ruggles' "Roentgen Interpretation," Joslin's "Treatment of Diabetes," Kuntz's "Neuro-Anatomy," Peter's "Extra-Ocular Muscles," Thornton's "Medical Formulary," and Wigger's "Physiology."

Caffeine In Coffee Main Theme Of Exhibit

Visit the Kellogg booth for a cup of refreshing Kaffee Hag coffee. Special exhibits showing the stages in decaffeinizing coffee are displayed and a complete explanation of the process is given. Reprints of reports covering research to determine the effects of caffeine are available, as well as nutrition material. The exhibit is in charge of Mrs. Winefred B. Loggans of the home economics staff at Battle Creek

Five Types Of Petrolagar On Exhibit

Physicians are cordially invited to visit booth 32 where Petrolagar Laboratories, Inc. will be represented by Mr. Pasko.

Petrolagar is an emulsion of pure mineral oil (65% by volume) and agar-agar, accepted by the Council on Pharmacy and Chemistry of the American Medical Association for the specialized treatment of constipation. Scientific drawings and literature on the subject of constipation will be available in addition to samples of the five types of

Newest Surgical Instruments Shown

The Roemer Drug Company will occupy booth 7, where they will exhibit the latest types of surgical instruments. Founded in 1898 with the determination to handle high quality merchandise, the company has maintained this policy, and any purchase from them may be made with the full assurance that the items purchased are right in every respect.

Borden's 80th Year

A warm welcome awaits all physicians at the Borden booth, number 35. Specially trained representatives will gladly provide information on Borden products, notably Dryco, Special Dryco, Klim, Beta Lactose, Merrell–Soule prescription products and Borden's irradiated evaporated milk.

Register At H. J. Heinz Company Booth

H. J. Heinz Company, makers of the 57 Varieties, invites you to visit their new exhibit featuring strained foods, breakfast cereals, tomato juice, and olive oil.

Stop for a cold drink of Heinz tomato juice and register for the fourth edition of the Nutritional Chart. The previous editions were so enthusiastically received that it was thought advisable to make frequent revisions in order to keep abreast with the rapid advances in the field of nutrition.

Assembly Floor Debate on Biemiller Bill Proposing Interim Committee Study

ONE of the seven Biemiller bills which had but preliminary legislative action before the adjournment of the legislature was bill 661, A, which provided for an interim committee composed of two senators, three assemblymen and two citizens to be appointed by the Governor. This committee, in the terminology of the bill, was delegated the task "to investigate the general subject of cost of medical care and ways and means of lightening the burden thereof." The position of the State Medical Society of Wisconsin and the Wisconsin Hospital Association appeared in the June issue of the Journal on page 489. This discussion before the committee outlines in detail the attitude of both organizations on this bill.

Subsequently this bill, with one minor correctional amendment, was reported by the Assembly Committee on Public Welfare for indefinite postponement (killing). This measure was discussed on the floor of the assembly on June 15. A long discussion ensued at that time, following which the bill was laid over for consideration at a later date. Because of the adjournment of the legislature, this bill was not reached for further action and died with adjournment of the legislature.

Discussion of this bill as it occurred on the assembly floor is reproduced here in complete detail.

Mr. Speaker: "The chair would like to announce a special order of business at ten o'clock this morning on bill 661, A."

The Clerk: "Bill 661, A, a bill by Mr. Biemiller to create an interim committee on the cost of medical care, and making an appropriation."

Assemblyman Biemiller: "Amendment No. 1, A was an amendment suggested by the State Medical Society on this bill to make perfectly sure if an interim committee is created it would not have to submit case records of physicians. That was never the intention of the original bill. We are simply putting in this amendment to safeguard that possibility. We don't ever intend to call for the case records of physicians."

Mr. Speaker: "The question is on the adoption of amendment No. 1, A to this bill. Those of you who favor the adoption of the amendment will say Aye; those opposed, No. The Ayes have it, and the amendment is adopted."

The Clerk: "Amendment No. 2, A is to amend the bill on page 2, line 7, section 4 by striking out the word 'three' and inserting therein the word 'forty.'"

Mr. Speaker: "The question is on the adoption of amendment No. 2, A."

Assemblyman Tehan: "Mr. Speaker and members of the assembly: This amendment makes a change in the bill in the amount of money appropriated for the purposes of the bill. The amendment provides that instead of an appropriation of $3,000, the sum of $40,000 be appropriated."

Grossly Inadequate

"I wish to open these remarks by saying that I am advised the State Medical Society and the Wisconsin Hospital Association are not opposed to a properly conducted investigation, if this legislature feels that there is a need for such investigation. Now, as I see it, that is a large amount of money to make an appropriation for,—in other words, a change from $3,000 to $40,000; but when I say that these associations are not opposed to a properly-conducted investigation, the sum appropriated becomes extremely important. Three thousand dollars, which is the appropriation of the bill at the present time, is so grossly inadequate that the surface would scarcely be scratched.

"The committee investigating the Costs of Medical Care, which is national in its scope, during the past five years has spent in the neighborhood of one million dollars. On the basis of population that the state of Wisconsin bears to the rest of the states, our proportion would be somewhere in the neighborhood of forty to fifty thousand dollars.

"Now then, I am putting before the assembly in a brief few words that if this investigation is to be had that it should be an adequate investigation, a properly-conducted one, and one that will represent a survey that is fair to the citizens of the State and the medical profession. Now, what does such a survey require? Well, just a few odd points for debate.

"There should be, for a properly-conducted investigation, an analysis of the incomes of physicians and surgeons at the present time,—I think you can all concede that. It would have to take into consideration the cost of a medical education,—in other words, the investment that the physicians and surgeons have invested in order to obtain their degree. There should be something of an actuarial study to determine what is the earning life of a

physician. In other words, how long can he actually and profitably practice the profession of medicine?"

Applies to Hospitals

"The survey asked by the gentleman from Milwaukee (2nd) applies also to the hospitals. That survey would then have to include, to be adequate and of value to this state of Wisconsin,—they would have to investigate the cost of plant and equipment in hospitals, the return that is gotten at the present time from the service that they render their various communities. This survey should include a study of the life of the plant, and of the hospital equipment in it. I would have to include a study of the cost of operating expenses.

"In addition to the hospitals then, and physicians, to be really an adequate survey, the same study would have to be made as to the dentistry profession, as to the earning capacity and the services rendered by nurses, by laboratory technicians, and so on.

"Now, there is further in this bill a directory phrase which provides that the report of this committee should be printed. In other words, to be of value, the information that is gathered by the committee should be published and spread to those who are interested in this report. Now, we have had an investigation by the Citizens' Committee on Public Welfare, and this legislature was asked and has seen fit to appropriate the sum of $2,500 for the printing of that report,—just $2,500 for that report. And under this bill we are asked to appropriate $3,000! The printing alone, I dare say, in this instance would equal or surpass the amount needed for the Citizens' Committee on Public Welfare."

Competent Investigators

"What further would be required? In order to properly obtain the material you would have to have competent investigators. The history of every investigation shows that its success depends upon whether or not it gets the proper information in a fair and impartial manner, which depends greatly upon the caliber and ability of those who go out into the field and get the material that is brought before the body for study. And a successful investigation of this type invariably produces a large and numerous amount of witnesses whose testimony has to be reduced to writing by shorthand reporters. Those of you who are familiar, who have been in lawsuits and who know what shorthand reporters charge per word or line, know the cost that is involved in such proceedings. Undoubtedly the expenses of the witnesses would have to be paid to bring them before such body. A large staff of stenographers would have to be employed. So all in all, to be of any service, an investigation of this type requires at the minimum the sum of $40,000. Now, if this legislature,—although the bill is marked for indefinite postponement—is inclined to turn down the committee report and to ask for an investigation, the very least that is required to produce such an investigation that would be of some value would be the sum of $40,000. I hope the amendment is adopted."

Mr. Speaker: "The gentleman from Manitowoc."

Assemblyman Sigman: "I did not really believe, and I think I am right in my statement from observation and in contact with some of the medical profession, that they would now use an agency to attempt to defeat a measure by having someone ask for an appropriation of $40,000, knowing full well that that would mean the defeat of that kind of legislation."

Socialized Medicine—a Problem

"Two years ago I introduced a bill asking for a similar investigation. At that time the representative of the Medical Society appeared, and before the Assembly Committee stated that they had no intention of opposing the bill at all, and pointed out further that there was no need of a large appropriation, because of the fact that some investigations already were made by the national institutions, and this committee would avail themselves of the reports made by these institutions,—not only including the medical society but including the association of hospitals; that there was no need for a large appropriation. And that they too felt at that time that this problem of socialized medicine was going to be a problem, and that it was necessary once and for all particularly in the state of Wisconsin to begin and really bring back a report with the assistance of the various associations, if they are sincerely interested in seeing that something of that manner is done. And I say to you that with the agencies of the state departments and the state hospital and the Medical Society,—if they are sincere in helping to clear the atmosphere on this important problem, that there is no need of a $40,000 appropriation. And I say to my good friend that that is a good clever maneuver, if they think they are fooling everybody, to change the appropriation to $40,000, knowing that that matter will defeat such legislation.

"Mr. Speaker, I move the rejection of this amendment."

Assemblyman Biemiller: "May I ask the gentleman from Milwaukee by what process of reasoning you choose an appropriation of $40,000?"

Assemblyman Tehan: "Based on the proportionate cost of the Committee on—I mean the national committee which spent a million dollars in the forty-eight states; based on the population which Wisconsin bears to the territory of the national survey, that the total of forty or fifty thousand dollars bears to the million dollars used in the national study."

Assemblyman Biemiller: "Did you discuss that with the secretary of the State Medical Society?"

Assemblyman Tehan: "No, I didn't discuss it with him."

Pure Poppycock

Assembly Biemiller: "Now, it was stated on this floor last Thursday that all the talk that was made in regard to the inability of a large strata of our population to meet the cost of medical care was pure poppycock that didn't stand up. I want to submit to this body, a convention of the National Medical Association now at Atlantic City in a formal resolution that was passed by that body say quite emphatically that it is quite true that large numbers of our population are not able to meet the cost of medical care,—and there you have the word of the highest authority of organized medicine that in fact that condition does exist. How do they know? Why, from exactly the same documents those of us who have been seated on this floor know it.

"A very careful study of the problem of the cost of medical care was made by the committee to which the gentleman from Milwaukee referred. The committee didn't spend a million dollars or more on this matter. There is literature on this field that would fill almost a library on studies that have been made, and it was testified two years ago—as the gentleman from Manitowoc said, at that time the State Medical Society agreed that the data was there, there was not much more job of original research that had to be made. But the job, Mr. Speaker and members of the assembly, which does have to be done is to correlate that material and relate it to the situation that exists in the state of Wisconsin. That particular job has never been done.

"Now, the thought behind this resolution, this bill for an interim committee is that with the appropriation of $3,000, plus what the gentleman from Manitowoc pointed out,—and the bill states very specifically the committee shall cooperate with all state departments, which includes the University where we have many members of the faculty who would be glad to aid and assign graduate students to this particular problem, we have that assurance; plus the fact that Harry Hopkins, director of WPA, has repeatedly stated one of the jobs that needed to be done, and he was willing to appropriate money from WPA funds to do it, was to study the costs of medical care. We meant that it would be possible to take this material and take the money that may be offered, and then to present to the next session of this legislature a very comprehensive report based upon examining material relating to actual conditions in the state of Wisconsin.

"I am a little confused by the figure brought in by the gentleman from Milwaukee (4th) [*Ed. Note—Assemblyman Tehan*], because at the hearing on this bill I asked the secretary of the State Medical Society what he thought would be an adequate figure, and he was raising the same general type of objection, having completely changed his position from two years ago; and he said then he thought probably $25,000 would be a figure which would do it. Still against that figure I raised exactly the same argument which Mr. Sigman and I have been raising against this $40,000 figure."

To Draw Some Conclusions

"Now, I want to point out that I am convinced that were this interim committee created that the State Medical Society would cooperate in such investigation. I presume it is quite likely that were the committee established,—you will note on page one that it calls for two citizens, and probably one of those citizens would be an official of the State Medical Society. Now, the State Medical Society has a huge library on this subject, they have really all the books in existence on it,—they have that material there. On the question of hospitals, Mr. Crownhart—who was until a short time ago also the secretary of the hospital association of this State*—boasts that they have made a very thorough survey of the complete problem. The raw material is there; the job is to draw some conclusions from it.

"Now, it seems to me the appropriation is sufficient and it can be carried out; or if it is going to be raised at all, it certainly shouldn't be raised sky high, up to $40,000. If I were sure that the gentleman from Milwaukee really wanted a $40,000 investigation, that might be another matter; but I don't think it is necessary, and I think the sum of $3,000 would do the job. And I hope the motion of the gentleman from Manitowoc will prevail, and I ask for a roll call."

Mr. Speaker: "Those in favor of the roll call will please rise. There are a sufficient number up, and the roll call is ordered."

Purely Political

Assemblyman Rice: "Mr. Speaker and members of the assembly: A few moments ago on another measure, the gentleman from Milwaukee (2nd) stated that he couldn't see any good purpose which an investigation would serve but a purely political purpose. I think the same application could be applied to this bill in which he has asked for an investigation on this piece of legislation. I don't want to see an investigation here just simply for political interests. If we have an investigation, I don't think anyone would object to it if it was made in a proper and official manner; but we don't want to simply have a gesture in order to arouse the sentiment of the public to the extent that there is something wrong by appropriating a $3,000 appropriation on an affair of this magnitude, an investigation of this character. It is a serious matter, and I personally agree with the gentleman from Milwaukee (4th) in his statement. I don't know whether it will take $40,000 or $25,000, but I

* Ed. Note—Granted three months' leave of absence as secretary of Wisconsin Hospital Association because of incompatible legislative positions.

know that a $3,000 appropriation is just a gesture, a political gesture, to arouse the public that there is something wrong in this profession.

"Now, I personally have no reason to believe that there is anything wrong here that demands an investigation, only just simply what I have stated,—to arouse the curiosities and sentiment of the public and even members of this legislature."

Scratch the Surface

"In the first place, it would be very difficult to choose a committee, as this interim committee, to properly investigate this affair. You can't take and pick a farmer or a barber or an electrician or a mechanic to investigate a matter of this character. Wherever the committee is chosen, they should be trained men along that line of work; and they in turn have to employ trained, efficient investigators. It would need considerable expense to properly investigate this matter, together with the channels of the state of Wisconsin. While I am not stating any figure, Mr. Speaker and members of the assembly, I wouldn't feel that an appropriation of this character is far out of the way to make a proper and efficient investigation. While I have no objection, as I said before, to a proper investigation on this matter if it is deemed advisable by this legislature, I do want to see it sufficient so that they may make a thorough investigation, that the public may know what the results are; and not just simply scratch the surface to arouse suspicion among the public."

Assemblyman Tehan: "Would the gentleman from Manitowoc yield to a question?"

Mr. Speaker: "Does the gentleman yield?"

Assemblyman Sigman: "Yes."

Assemblyman Tehan: "On the state cement bill, what was the appropriation asked for an investigation of that?"

Assemblyman Sigman: "The state cement bill survey provided $10,000, with the right to take options and report back. However, the difference between the state cement bill was this: That there were no extensive investigations made relative to some things except whether or not the material in the State was there; and the difference in the state cement bill too provided that the State would try to determine whether or not, by using the same process that the privately-owned cement plant used in operating, the State could go into the business. However, it did not mean you had to use that $10,000. If they wouldn't use that amount of money, it would be redeemed and turned over to the general fund."

Assemblyman Tehan: "It is a fact that some $10,000 was asked for some studies, and $20,000 for options if they wanted to take any,—isn't that a fact?"

Assemblyman Sigman: "Yes, $10,000 was appropriated."

Assemblyman Tehan: "I think if you will read the bill you will find $10,000 was used, and $20,000 could be used for the matter of taking up options."

Assemblyman Sigman: "Would the gentleman yield to a question?"

Assemblyman Tehan: "Yes."

Assemblyman Sigman: "Assuming your amendment goes through, will you use all the energy you are now in seeing that the bill passes here and in the senate?"

Assemblyman Tehan: "No. My position on this matter is, if this particular legislature sitting here wants an investigation, I say the only investigation that would be of any service is one conducted along lines that will make a thorough investigation. In other words, if this bill is in the minds of this assembly to pass, then a proper and adequate investigation should be made, and not one that would merely be a sop to politicians, allowing them to look at a few source books. Why, the printing alone on any survey would cost almost the sum of the $3,000 asked for."

Assemblyman Sigman: "Would the gentleman yield to another question?"

Assemblyman Tehan: "Yes."

Assemblyman Sigman: "In view of your reply to my last question, isn't it right for us to assume then that your amendment is merely to kill the bill?"

Assemblyman Tehan: "No. I submit this amendment at this time so when the matter does come up we will vote on a measure which will be fair, that we will have an appropriation sufficient so that it will be fair to the citizens of the state of Wisconsin and the medical profession; and then the survey you will have will be of some service so it will guide our future actions in the legislature, if a few of us are returned to the legislature in 1939.

"So I say, members of the assembly, that this amendment is one that should be adopted if this house sees fit to override the recommendation of the Public Welfare Committee. I hope and trust the amendment is adopted."

Assemblyman Murphy: "I'd like to ask the gentleman from Milwaukee (2nd) a question."

Mr. Speaker: "Will the gentleman yield to a question?"

Assemblyman Murphy: "How long approximately would you say it would take this committee to get this material together?"

Assemblyman Biemiller: "Approximately one year."

Assemblyman Murphy: "At that time how much do you think it will have cost for expenses for seven members of the committee?"

Assemblyman Biemiller: "Judging on the basis of previous interim committees, irrespective of the amount appropriated, I assume we might get by with something between $1,500 and $2,000 for seven members of the committee."

Assemblyman Murphy: "Approximately how much do you think it would cost to print the report of the committee?"

Assemblyman Biemiller: "That is the next legislature's job, not this one's. I assume this committee would do the same as the Committee on Public Welfare did, present some mimeographed drafts, and then ask an appropriation from the legislature."

Assemblyman Murphy: "I intend to vote for this amendment. [*Ed. Note—To increase the appropriation to $40,000*] I merely asked the author several questions to get some idea on what he has based his idea for this appropriation. The gentleman from Milwaukee (2nd) asked the gentleman from Milwaukee (4th) by what logic he arrived at the figure of $40,000. The gentleman from Milwaukee (4th) gave the only logical answer I have heard for the appropriation on this bill. I can't see by what reasoning the gentleman from Milwaukee (2nd) arrived at the figure of $3,000. He suggested that, I believe, as a conservative estimate. Now, the gentleman from Milwaukee (4th) has told you in order to make a decent and worth-while survey it would require experts, stenographers, and a lot of time and a lot of other things to take into consideration, and he based his estimate on this report gained in a national way. Now, this committee would have $40,000 by this amendment. I hope the amendment is adopted."

Going to Be Frank

"The gentleman from Manitowoc has asked the gentleman from Milwaukee (4th) if he would use the same amount of energy in trying to pass this bill if the amendment was adopted as he has in trying to get this amendment adopted. Well, I would like to say to the gentleman from Manitowoc, I am going to be frank in voting on this bill. I am going to vote for the amendment, so that if we do have a committee at least that committee will have the finances, together with the power, to get in the experts that they will need on an affair of this kind. And then I am also going to be frank on the passage of the bill: I am going to vote against it. The reason for that is this: Whether it has the $40,000 appropriation or not, I am going to vote against it because I think it is the wrong way to handle the investigation.

"The author stated in his talk that he had data compiled, that he would have quite a bit of it compiled by the national association; and it merely had to be correlated. That involves medical data, and involves medical knowledge and some social knowledge; and by this bill we are intending to set up an interim committee of three assemblymen and two senators and two citizens to investigate this data which has been compiled by experts, to look over their work, correlate it and submit a report back to us. Now, the only way that committee can operate, as I see it, it will have to call in experts to help and experts to advise them; and I submit to you members the only way to handle a proposition of this kind which is highly specialized would be to hire one or two individuals who knew what this work was all about and pay them possibly what the appropriation is in this particular bill. It certainly seems ridiculous to set up a committee of four or five men who may have had some special work in social service work or something like that, and ask them to pass on a report that has been submitted by some of the best men in that field in the country. And I hope, Mr. Speaker, this amendment is adopted, and then the bill is killed."

Experts in the Medical Line

Assemblyman Grobschmidt: "Two things have been overlooked when you talk about hiring experts. The state of Wisconsin now has employed and at its command experts in the medical line who are willing and glad to help out this interim committee provided it is set up; and the gentleman who proposes this amendment well knows that is true. These gentlemen couldn't be paid for their services if they wanted to be paid. We have out at the Wisconsin General Hospital probably as great a staff of experts as any hospital in the United States. Some of these gentlemen are willing and glad to help out this committee if it is set up, at no cost to the State only excepting probably their travelling expense. As far as the high cost of experts is concerned, it is a lot of hooey and bunk. The gentleman behind this amendment knows that. Right out at the Wisconsin General you can go out to the University and get all the experts necessary. The gentleman also knows that Mr. Hopkins has urged this sort of investigation, and that the WPA probably might be set up, which wouldn't cost a cent.

"Absolutely, this is a subterfuge to kill the bill. There is no $40,000 needed, and the gentleman behind the amendment well knows that."

Assemblyman Blomquist: "Have you any figure as to the percentage of people in the state of Wisconsin who are now in need of medical care and hospitalization?"

Assemblyman Biemiller: "The only available material at the present time is on the cost of medical care, estimating that 65 per cent of the population do not receive the type of medical or hospital care that they should. Now, what we would like to do with this committee is to take these conclusions and that data, and definitely bring it into the state of Wisconsin and see where our State fits into this picture."

Assemblyman Catlin: "What is the reason this 65 per cent are not receiving the medical care or hospitalization they ought to have?"

Assemblyman Biemiller: "Because they haven't sufficient funds to meet the cost of catastrophic illness."

Assemblyman Blomquist: "How soon some of us are so very much interested in the welfare of the human being, especially when some of these bills come up and happen to step on the toes of a certain organization. I can't understand why the Medical

PROTAMINE, ZINC & ILETIN (INSULIN, LILLY)

PROTAMINE ZINC INSULIN LILLY

● Preparation of the active antidiabetic principle in sparingly soluble form as Protamine Zinc Insulin provides a means for prolonging the relatively fleeting action of unmodified Insulin. The characteristic antidiabetic effect of Insulin has been retained, but the velocity of its action has been moderated. The prolongation of the Insulin effect over the entire day not only adds materially to the comfort of the diabetic patient, but justifies the hope that the complications of diabetes may now be rendered less frequent in occurrence.

Protamine, Zinc & Iletin (Insulin, Lilly) is marketed by Eli Lilly and Company in 10-cc. vials. Literature describing its clinical application will be promptly furnished upon the request of physicians.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Association should be opposed to a measure of this kind, knowing that there are many people in the state of Wisconsin who are in need of medical care and hospitalization and who haven't got the means to get it. Now, I say that it should be in their own interest to be able to bring about some kind of legislation whereby all the people would have the advantage of expert care, as far as medical help is concerned."

Worm Pills

"Now, the other day I happened into a store up here in central Wisconsin, and I was going to get some worm pills for my dog. While I stood there waiting to be waited on, there was a gentleman came in there and he said to the clerk, 'I have got a pain right here,'—I don't know just where it was. Well, the clerk—a young man very ambitious—says, 'I have got just the thing for you.' So he went back in the prescription part of the drug store and he gave him a little something, the fellow paid twenty-five cents, and out he went. Another party was in there, an elderly lady, and she said, 'I have got a very persistent cough,' and she said, 'I wonder if you could give me something for it.' And he said, 'Certainly, we have got the best cough medicine in the town, we will fix you right up.' Well, those two got fixed up. Well, they didn't have the worm pills that I wanted for my dog, and he advised me to take my dog to a veterinarian.

"Now, that shows the inconsistency between what we are talking about and what is actually going on in the state of Wisconsin. If he had been consistent he would have said, 'You better go and see a doctor.' Or if the case was one where they didn't have the money to go to see a doctor, we of the people of Wisconsin should provide means whereby these people could have medical care. Now, I say we are inconsistent when we talk about having these highly specialized people to take care of the human race, and then shut off approximately 65 per cent of the people from taking advantage of that highly specialized profession that should be available to all the people."

In the Interests of Humanity

"Now, I can't see why we should turn down a bill of this kind, because it is in the interests of humanity; and I do not believe, as the amendment creates, the fund of $40,000 is necessary for this investigation. And I say this knowingly, that at the University of Wisconsin I think we probably have some of the best medical men in the country, because I have been told that the medical school of Wisconsin graduates some very highly specialized men.

"As the gentleman from Milwaukee (10th) has stated, we have a state hospital second to none in the United States so far as having highly specialized men; and I am sure they are willing to give the knowledge and assistance that is necessary for that committee.

"If you want to try to kill the bill, vote for increasing the appropriation. I say vote against it,—be square on this. We talk about being so concerned about the medical condition, how it needs help in order to help humanity. Well, let's show that we are honest and sincere in our effort.

"Let's give the people who need this help the opportunity to have it, and let this investigation go on, so that it may be brought to the attention of this legislature and maybe all of the people can have the advantage of a highly trained medical profession."

Assemblyman Catlin: "I would like to ask the gentleman from Manitowoc a question."

Mr. Speaker: "Will the gentleman from Manitowoc yield?"

Assemblyman Sigman: "Yes."

Assemblyman Catlin: "In view of the question asked of the gentleman from Milwaukee (4th), I am wondering if this amendment is adopted whether you are going to vote against the bill as an unnecessary expenditure of state money?"

Assemblyman Sigman: "I am hoping that it may not be adopted, because I know what will happen to it if it is adopted."

Assemblyman Catlin: "Yes or no."

Assemblyman Sigman: "No, I will vote for it anyway, because I believe something should be done to correct the situation."

Assemblyman Engebretson: "I would like to ask Mr. Biemiller a question. Mr. Biemiller, have you any idea how many people would be called in as witnesses in this investigation?"

Assemblyman Biemiller: "No, that would be a matter up to the committee entirely as to who it would have up."

Assemblyman Engebretson: "The reason I ask the question is this: that under Section 6 of your bill it reads as follows: 'Said committee shall hold such meetings at such times and in such places as it may deem advisable.'

"Now, if you call in 10,000 people it would mean considerable money, wouldn't it, out of the State? Or 5,000, or 2,000 or 200?"

Assemblyman Biemiller: "Members of the assembly, it is rather obvious the gentleman is rather ridiculous. He knows the provision which is in this particular bill is in any bill for any interim investigation."

Assemblyman Engebretson: "Well, Mr. Biemiller, the entire bill is a joke. 'The members of the committee shall receive no compensation'—I am reading from Section 4—'but shall be reimbursed their actual and necessary expenses.' "

Assemblyman Biemiller: "Right."

Witness Fees

Assemblyman Engebretson: "There has been considerable debate on the amount of money involved. Going a little further in Section 6 it says subpoenas shall be served in the same manner as circuit court subpoenas are served. If a circuit court subpoena is served, isn't that witness entitled to a witness fee? I am not a lawyer, but isn't that so?"

DIARRHEA

"the commonest ailment of infants in the summer months"

(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

One of the outstanding features of DEXTRI-MALTOSE is its low fermentability and consequent preference in the management of infantile diarrhea.

In summer diarrhea, "The best food to use is boiled skimmed milk, acid skimmed milk, or dried protein milk. Carbohydrates are added in the form of dextri-maltose."—*G. Wiswell: Infant mortality and its prevention, Nova Scotia M. Bull., 15:504-509, Oct. 1936.*

—•—

Concerning the treatment of diarrhea, "If the weight remains stationary, it is an indication that loss of substance is occurring through the stools, mostly in the form of alkaline salts. To equalize this loss of substance, the diet must be increased, but in such a way as to avoid causing fermentation. This may be done by adding dextri-maltose and preparations of protein to the food, increasing the calories until the infant is taking 160 calories per kilo. of body weight."—*H. L. Ratnoff, Nutritional disturbances, Arch. Pediat., 41:771, Nov. 1924.*

—•—

"A very frequent cause of underfeeding results from the improper treatment of diarrhea . . . One of the greatest advances made in the science of infant feeding was the development of protein milk by Professor Finkelstein and the use of buttermilk or lactic acid mixtures. The great advantage of being able to feed the infant with fermentative diarrhea a food containing 12 calories to the ounce, like protein milk, after only one day on a starvation diet, is apparent. In addition, the further advantage of being able to safely add a carbohydrate like Dextri-Maltose No. 1 or No. 2 to the protein milk within a few days, enables one to gradually bring the infant up to its basal needs in a short time. When protein milk was first used, carbohydrate additions were advised against with the result that many children on it went into a state of collapse. The suggestion of Dr. Alan Brown of Toronto, Canada, that Dextri-Maltose be added to protein milk, was of great value."—*G. J. Feldstein: Underfeeding of infants and children, Arch. Pediat., 50:297-306, May 1933.*

—•—

Regarding the treatment of diarrhea, "In our experience, the most satisfactory carbohydrate for routine use is Mead's dextrimaltose No. 1."—*F. R. Taylor: "Summer Complaints," Southern Med. & Surg., pp. 555-559, Aug. 1927.*

—•—

"Again, following the teaching of the originator of protein milk, the carbohydrate added should be the one that is most easily assimilated. Dextri-maltose is the carbohydrate of choice."—*R. A. Strong: The diarrheas of early life, Mississippi Doctor, 14:9-15, Sept. 1936.*

"If the stools are acid, green, and excoriating, a food high in protein and low in fat, and carbohydrate is indicated. Dried powdered protein milk is very ideal here—one to ten dilution. On the other hand, if the evacuations are brown, watery, and stinking with putrefactive odors, a proteolytic diarrhea, it will be of advantage to add a small amount of carbohydrate, a dextrimaltose preparation being very efficacious."—*A. G. Dow: Diarrheas in infants, Nebraska M. J., 20:22-24, Jan. 1935.*

—•—

"After the preliminary short period of starvation, protein milk should be used. . . . When the diarrhea has been sufficiently checked, dextrimaltose may be added and gradually increased until from 4 to 6 tablespoons are being used."—*W. L. Denney: Acute nutritional disturbances of infancy, Univ. West. Ontario M. J., 2:192-137, April 1932.*

—•—

In diarrhea, "Carbohydrates, in the form of dextri-maltose, well cooked cereals or rice, usually can be handled without trouble."—*B. B. Jones: A discussion of some of the commoner types of infantile diarrhea, and the principles underlying the diets used in their treatment, Virginia M. Monthly, 55:411-415, Sept. 1928.*

SERIOUSNESS OF DIARRHEA

There is a widespread opinion that, thanks to improved sanitation, infantile diarrhea is no longer of serious aspect. But Holt and McIntosh declare that diarrhea "is still a problem of the foremost importance, producing a number of deaths each year. . . ." Because dehydration is so often an insidious development even in mild cases, prompt and effective treatment is vital. Little states (Canad. Med. A. J. 13: 803, 1923), "There are cases on record where death has taken place within 24 hours of the time of onset of the first symptoms."

In the treatment of dysentery, "As a useful supplement, Bessau's thick rice water with 1 to 5 per cent dextrimaltose may be used, or soy bean milk, which also may serve as maiu nourishment in the rare cases of hypersensitiveness to cow's milk."—*O. Willner: Dysentery, in The Practitioner's Library of Medicine & Surgery, D. Appleton-Century Co., Inc., New York, 1935, vol. 7, p. 371.*

—•—

In cases of diarrhea, "For the first day or so no sugar should be added to the milk. If the bowel movements improve carbohydrates may be added. This should be the one that is most easily assimilated, so dextri-maltose is the carbohydrate of choice."—*W. H. McCaslan: Summer diarrheas in infants and young children, J. M. A. Alabama, 1:278-282, Jan. 1932.*

—•—

"When there has been a tendency to looseness of the bowels, a form of sugar which ferments but slightly, such as dextrimaltose, may be employed."—*W. Sheldon: The artificial feeding of infants, Practitioner, 134: 415-428, April 1935.*

—•—

". . . I begin to add carbohydrates slowly, by replacing ¼ ounce Casec every two days with ¼ ounce of Dextri-Maltose, preferably Dextri-Maltose Number one. As a rule, this is tolerated. When one ounce of Dextri-Maltose is used, the Casec, of course, should be discontinued."—*J. W. Reed: The etiology and treatment of diarrhoeas of infancy, Virginia M. Monthly, 53:732-735, Feb. 1927.*

—•—

In treating chronic diarrhea, "You do not need to starve such patients, but you select a diet of dried protein milk with the addition of dextrimaltose given in small three-hourly feeds, or soured milk, or an ordinary half-cream dried milk, or a whey mixture."—*R. Hutchison: Lectures on Diseases of Children, ed. 7, William Wood & Co., Baltimore, 1936, pp. 26, 65, 71-72, 76.*

—•—

"The effect of a combination of dextrimaltose depends on the relative properties of the two components. If maltose is in excess, it tends to cause fermentation and loose stools, while dextrins are non-fermentable. In the preparations commonly used, Mead's Dextri-maltose Nos. 1 and 2, the maltose is only slightly in excess of the dextrins, and therefore they are advantageous if there is a tendency to excessive fermentation."—*W. J. Pearson and W. G. Wyllie: Recent Advances in Diseases of Children, P. Blakiston's Sons & Co., Phila., 1930, pp. 74, 116.*

Just as DEXTRI-MALTOSE is a *carbohydrate* modifier of choice, so is CASEC (calcium caseinate) an accepted *protein* modifier. Casec is of special value for (1) colic and loose green stools in breast-fed infants, (2) fermentative diarrhea in bottle-fed infants, (3) prematures, (4) marasmus, (5) celiac disease.

MEAD JOHNSON & CO., EVANSVILLE, IND., U. S. A.

When requesting samples of Dextri-Maltose, please enclose professional card to cooperate in preventing their reaching unauthorized persons.

Assemblyman Biemiller: "A very nominal fee, yes, that is correct."

Assemblyman Engebretson: "As I say, I am not an attorney, but the nominal fee—as I understand —is $2.50, isn't it? The regular witness fee?"

Assemblyman Biemiller: "I think I got $3 the last time."

Assemblyman Engebretson: "I know, but you are a doctor. I want to ask the gentleman this: If the sheriff is not entitled to $1.20 per subpoena for serving that, and in addition to that ten cents a mile for every mile that he travels over two miles?"

Assemblyman Biemiller: "I think you are mistaken on that. And again, I submit that the gentleman from Rock evidently has not familiarized himself with the procedure of interim committees."

Assemblyman Engebretson: "Oh, you don't expect the witnesses to live on hamburgers when they are down here, do you? Mr. Speaker, I am merely asking this question because the appropriation has been raised by the amendment from $3,000 to $40,000. There is going to be considerable expense involved in an investigation of this sort, and I was just wondering what is going to happen if this bill is adopted and the investigation made. I am feeling only that we would have an awful time, for instance, compelling the gentleman from Marathon, Dr. Barber, to come into any institution and tell them he has got to perform an operation or perform service at any such figure. I believe that the expense in addition to the appropriation is something that we could get away from. It is all nonsense, in my estimation."

Assemblyman Barber (M.D.): "I am not going to say very much, because I have travelled one hundred miles this morning to get here. But with an appropriation of $3,000 you are going to get nowhere. If you are going to the store for a half a dollar's worth of sugar, you get a half a dollar's worth and no more; and if you are going to appropriate $3,000, you are going to get just that and no more, and as far as this investigation is concerned it will require from $18,000 to $20,000."

Progress of Medical Science

"While years ago people died by the thousands with diphtheria and typhoid, today we save 95 per cent of the typhoid cases,—medical science has brought into this world a prophylactic treatment for diphtheria and typhoid fever and also for smallpox; and when you go down into the medical files it convinces you of the progress of medical science,—more than a common ordinary practice, because it requires more skill. And if we don't go to the bottom of this investigation, what are the people of the state of Wisconsin going to get? And I don't see why the medical profession ought to be investigated, or the hospitals in the state of Wisconsin ought to be investigated; I don't see why any specialist who has a specialty of any kind and treats diseases of the eye or throat, or in pneumonia or typhoid,—why he should be compelled to come before the committee and reveal exactly and what his treatment is. And as far as the witnesses are concerned, you can draw on 250,000 people in the state of Wisconsin, and you will have to keep track of all these. Do you think you can do it for $3,000? It is impossible.

"We haven't any objection to this investigation. The amendment calls for an appropriation of $40,000, and if you appropriate that much and make a thorough investigation and get at the bottom of the whole theory, then the medical profession of the state of Wisconsin has no objection whatever."

Something Wrong Somewhere

Assemblyman Grobschmidt: "Mr. Speaker, they are asking for $40,000 for expert advice to this committee. Now, if we are going to spend $40,000 for expert advice, then God knows the costs of medical care ought to be investigated. I think they show this by this amendment. A sum of $40,000 for expert advice, when expert advice is free right now on your Capitol Hill,—and they are asking for $40,000 to be paid experts. I think that thing alone shows the weakness of their opposition, that there is something wrong somewhere and it ought to be investigated."

Assemblyman Ludvigsen: "Mr. Speaker, I move the previous question."

Mr. Speaker: "He moves the previous question. The chair will have to put the motion. Those of you who are in favor of ordering the previous question will vote Aye; those opposed will vote No. Ayes, 27; Noes, 53. And the assembly refuses to order the previous question."

Assemblyman Costello: "I disagree with both of the gentlemen. I think the amount of $3,000 is not enough; I think the amendment submitted by the gentleman from Milwaukee (4th) is a little too steep, because it will affect the bill. Taking these two facts into consideration and realizing the cost of such a committee, I hope that the members of the legislature will consider this amendment seriously, reject it, and submit some kind of an amendment which will give to the committee the amount of money that is necessary to conduct such an investigation."

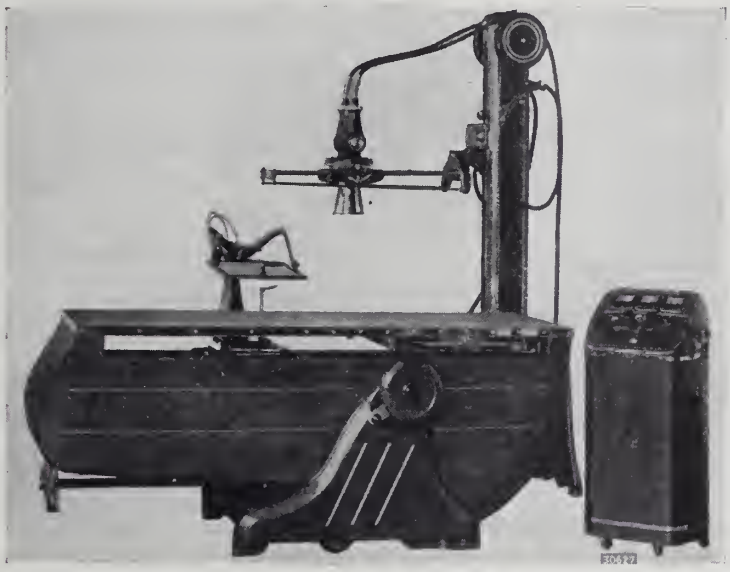
Should Eat Ham and Eggs

"We all admit that $3,000 is not enough, and that has been pointed out on the floor; but $40,000 is an exorbitant figure to be used for a committee for approximately one year. The gentleman from Rock points out we don't want the committee to eat hamburger. I think they should eat ham and eggs. Therefore, I hope that the members of the legislature will consider this very carefully, and I wish to submit an amendment at this time."

Mr. Speaker: "Amendment No. 1, A to amendment No. 2, A to bill 661, A, offered by Mr. Costello: 'In line 7, page 2, Section 4, strike out the word "forty" and substitute "ten."'

"The question is on the adoption of amendment No. 1, A to amendment No. 2, A."

HERE IT IS!



The New Picker-Waite Series 200

A Combination RADIOGRAPHIC and FLUOROSCOPIC X-Ray UNIT with FULL WAVE RECTIFICATION providing FAST RADIOGRAPHY with either the FLUOROSCOPIC OR RADIOGRAPHIC TUBE—Both SHOCKPROOF and RAYPROOF—The Modern X-Ray Plant for the Modern X-Ray Laboratory—For information on this unit or other X-Ray Equipment for Radiography, Fluoroscopy, or Therapy, tear out and mail the attached coupon.

HURLEY X-RAY COMPANY

PICKER-WAITE X-RAY EQUIPMENT
BURDICK PHYSICAL THERAPY EQUIPMENT

2511 West Vliet Street

MILWAUKEE, WISCONSIN

HURLEY X-RAY COMPANY
2511 WEST VLIET STREET
MILWAUKEE, WISCONSIN

Please send me Information

☐ Series 200 Unit
☐ Shockproof Portable Unit
☐ THERAPY

Dr. _____

Address _____

City _____ State _____

Assemblyman Catlin: "I am going to move the rejection of the amendment, and ask for a roll call."

Mr. Speaker: "A roll call is requested. Those in favor of a roll call on the question of the adoption of amendment 1, A to amendment 2, A will please rise. There are a sufficient number up, and a roll call is ordered."

Assemblyman Biemiller: "Mr. Speaker and members of the assembly: While I am still of the opinion that a sound investigation could be made on the basis of a $3,000 appropriation, I want to reiterate, for just a moment I have talked to some of my colleagues who feel we ought to have a little more money. I have no particular objection to this $10,000 amendment proposed by the gentleman from Kenosha, but I can't refrain from saying two or three things that I think have been said here before but haven't been brought together."

Steady Smoke Screen

"In the first place, I think a steady smoke screen is being raised about what bill 661, A is attempting to do,—or for that matter, what any of the bills I have in here are attempting to do. We are not attempting to probe into or attempting to question any scientific aspects of the study of medicine. This committee wouldn't set itself up as to what type of healing is better than others, or what type of operation is better than others. All it is attempting to deal with is the cost of medical care. Read lines 6 and 7: 'The Committee shall have authority to inquire into such phases of the general subject of cost of medical care as it may deem advisable to investigate.'

"That is all we are trying to do, is to investigate medical economics, not medical science. In connection with that, it has been very plainly stated there are people on the staff of the Wisconsin General well acquainted with this problem, we will have in the State Medical Society people well acquainted with this problem, and we have on the staff of the University of Wisconsin a gentleman selected by the United States Government as the foremost authority in the field of social legislation,—Dr. Ed Witte, heading up the Social Security Board in Washington,—you don't have to go further than that, who is admittedly an outstanding person in matters of social legislation and health insurance, and so on, in all the United States. And under this bill the resources of the University would be available, graduate students trained in seminars of our economic department would be assigned to various studies under this bill,—and I think the smoke screen that is constantly raised about experts is purely a smoke screen in an effort to defeat the bill."

Assemblyman Murphy: "Will the gentleman from Milwaukee yield to a question?"

Mr. Speaker: "Does the gentleman yield to a question?"

Assemblyman Biemiller: "Yes."

Assemblyman Murphy: "Then if you are sure of so much that is free of expert advice, what is the need of this committee at all?"

Assemblyman Biemiller: "To correlate the material and bring it in efficiently before this body, which is the duty of any committee."

Assemblyman Murphy: "Mr. Beimiller, you say we have all this free advice, and there is a gentleman over at the University of Wisconsin and at the State Hospital who are making a study of this and can submit it to the legislature,—is that true?

Assemblyman Biemiller: "I said the information is available, is what I said."

Assemblyman Murphy: "Well, if we can get this expert advice and get it free, and they can do a good job, just tell me what the committee is going to do?"

Assemblyman Biemiller: "The committee is going to consult with the experts and bring back definite information, as any interim committee is charged with doing, to the next session,—which is the duty of the legislature and not the duty of the experts."

Assemblyman Murphy: "You will admit that the committee that might be selected would probably have no knowledge about the medical care."

Assemblyman Biemiller: "I will not admit that. I can name five people now whose opinion I have a great deal of respect for in the field of medical economics, not medical science."

Assemblyman Murphy: "You will admit that great dependence ought to be placed upon these experts that are brought in."

Assemblyman Biemiller: "For information, yes."

Assemblyman Murphy: "Mr. Speaker and members of the assembly, then I submit to you members we may as well—if these experts are coming in we are going to get some advice and correlate the information, because from the answers given by the author of this bill correlating this information is simply putting it in a column and applying it. The committee is unnecessary. I move the previous question."

Mr. Speaker: "The clerk has received a number of amendments here. Whether they are amendments to this particular amendment or not, I don't know; but I imagine they are.

"The question now is upon the rejection of amendment No. 1, A to amendment No. 2, A. Those of you who are in favor of rejecting amendment No. 1, A to 2, A will vote Aye; and those opposed, No. Have all voted? Ayes, 55; Noes, 34. The amendment is rejected, and the question now is upon the rejection of amendment No. 2, A. Those of you who are in favor of rejection of amendment 2, A, which is as I recall the $40,000 appropriation, will vote Aye; those opposed will vote No,—and the clerk will prepare the roll. There are 43 Ayes—"

Assemblyman Barber: "Mr. Speaker, I didn't understand the question."

Mr. Speaker: "How does the gentleman desire to be recorded?"

Assemblyman Barber: "No."

FORTIER and FORTIER
X-RAY LABORATORY

Deep Therapy, 200,000 Volts
Superficial Therapy
Roentgen Diagnosis

Radiographic Examinations made at beside in residence if desired.

709-710 MAJESTIC BUILDING
MILWAUKEE

Office Marquette 5150-5151
Residence Edgewood 0420

Orthopedic Appliances

Abdominal Belts
Elastic Stockings
Whitman Arch Plates
Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 Milwaukee, Wis.

NON-CANCELLABLE

Health and Accident Insurance

and

Low Cost, Guaranteed Rate
Life Insurance

THE MASSACHUSETTS PROTECTIVE COMPANIES
Worcester, Massachusetts

A. L. LYTTLE, General Agent
5000 Plankinton Building
Milwaukee, Wisconsin

Drink
Coca-Cola
Delicious and Refreshing

Pure refreshment

Mr. Speaker: "The chair understands the gentleman requests to be recorded as voting No. The gentleman wants to be recorded as voting No, is that correct? The question is on the rejection of the $40,000 amendment."

Assemblyman Barber: "I vote No."

Mr. Speaker: "The roll is closed. Ayes, 42. The gentleman from Marathon is recorded, I am told, as voting Aye; he desires to be recorded as voting No, and the change will leave the vote 42 Ayes. Adding his 'No' to the roll, it makes 47 Noes. The assembly refuses to reject the amendment.

"Now, on the adoption of amendment 2, A."

(Roll call requested)

Mr. Speaker: "Those of you who are in favor of the adoption of amendment No. 2, A will vote Aye; those opposed will vote No. And the clerk will prepare the roll. Have all voted? The roll is closed. Ayes, 48; Noes, 42. And the amendment is adopted."

Assemblyman Sigman: "I move a reconsideration of the vote*."

Mr. Speaker: "The gentleman moves a reconsideration of the vote by which amendment No. 2, A was adopted."

Assemblyman Tehan: "I move by unanimous consent the reconsideration of the vote on the adoption of the amendment be taken up at this time."

(The assembly by a roll-call vote refused to suspend the rules and take up a reconsideration of the vote by which amendment No. 2, A was adopted.)

Mr. Speaker: "We have another special order at this time."

* * *

* Under the rules of the assembly, motions to reconsider a vote taken by the assembly must lay over two legislative days.

THE JOURNAL BOOKSHELF

BOOKS RECEIVED FOR REVIEW

Synopsis of Digestive Diseases. By John L. Kantor, M.D., associate in medicine, Columbia University; gastroenterologist and associate roentgenologist, Montefiore Hospital for Chronic Diseases, New York. Price $3.50. St. Louis: The C. V. Mosby Company, 1937.

The Laboratory Diagnosis of Syphilis. By Harry Eagle, M.D., lecturer in medicine, Johns Hopkins University Medical School, Baltimore, Maryland. St. Louis: The C. V. Mosby Company, 1937.

Synopsis of Gynecology. By H. S. Crossen, M.D., professor emeritus of clinical gynecology, Washington University School of Medicine; gynecologist to the Barnes Hospital, St. Louis Maternity Hospital and St. Luke's Hospital; and R. J. Crossen, M.D., assistant professor of clinical gynecology and obstetrics, Washington University School of Medicine; assistant gynecologist and obstetrician to the Barnes Hospital and the St. Louis Maternity Hospital. Second edition. Price $3. St. Louis: The C. V. Mosby Company, 1937.

Textbook of General Physiology. By T. Cunliffe Barnes, D. Sc., assistant professor of biology, Yale University. Philadelphia: P. Blakiston's Son & Co., Inc.

Laboratory Manual of General Physiology. By T. Cunliffe Barnes, D. Sc., assistant professor of biology, Yale University. Philadelphia: P. Blakiston's Son & Co., Inc.

Clinical Endocrinology. By Samuel A. Loewenberg, M.D., clinical professor of medicine, Jefferson Medical College, Philadelphia; assistant visiting physician, Jefferson Hospital, Philadelphia. Price $8. Philadelphia: F. A. Davis Company, 1937.

Clinical Allergy. By Louis Tuft, M.D., chief of clinic of allergy and applied immunology, Temple University Hospital; associate in immunology, Temple University School of Medicine. Introduction by John A. Kolmer, M.D., professor of medicine, Temple University. Cloth $8. Philadelphia: W. B. Saunders Company.

A Textbook of Surgical Nursing. By Henry S. Brookes, Jr., M.D., instructor in clinical surgery, Washington University School of Medicine; surgeon to the out-patients, Washington University Dispensary. Price $3.50. St. Louis: The C. V. Mosby Company, 1937.

Nutritive Aspects of Canned Foods. A bibliography of scientific reports, and helpful tables of food data. Compiled by the Nutrition Laboratory, Research Department of the American Can Company.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

A Medical Formulary. By E. Quin Thornton, M. D., emeritus professor of therapeutics, Jefferson Medical College, Philadelphia. Fourteenth edition, thoroughly revised. Philadelphia: Lea and Febiger, 1937.

The reviewer cannot recommend this book since it contributes so little worth-while information and presents so much obsolete and inadequate material. A. L. T.

ICHTHYOL

TRADE MARK

Council Accepted

MILDLY ANTISEPTIC

EMOLLIENT

AND ASTRINGENT

"ICHTHYOL" MAY BE USED

- On tampons—a 10 to 25% solution in glycerin or water
- For rectal or vaginal suppositories—admixed with cacao butter
- For douching—a 2% solution
- For enemas—a 2% solution
- In various skin affections—a 5 to 50% ointment or varnish
- On joints—a 5 to 50% ointment

"Ichthyol" is the registered trademark of the product supplied under the Merck label. When you prescribe "Ichthyol" you are utilizing the product originally introduced by Unna.

MERCK & CO. Inc. *Manufacturing Chemists* **RAHWAY, N. J.**

When writing advertisers please mention the Journal.

Short-Wave Diathermy. By Tibor de Cholnoky, M.D., associate in surgery, New York Postgraduate Medical School, Columbia University. Price $4. New York: Columbia University Press, 1937.

Within recent years many books and articles on the relatively new form of diathermy produced by the short waves have appeared. Some apparently are overenthusiastic, some doubtful of the superiority of the short waves as compared to longer wavelengths of the older type. This new book by Dr. de Cholnoky presents the subject comprehensively, and many references and quotations from other investigators are offered. The prospectus states that it is hoped that the book will serve a dual purpose of service to the medical profession, proving useful as a guide to the application of short-wave diathermy, and that it will also serve as a stimulus to the further study that is so badly needed.

The chapters have to do with experiments on bacteria and other organisms, experiments on animals, the technique of short-wave diathermy and its physics; infections, and the diseases of the various systems in which the application of internal heating is indicated. The book on the whole is a contribution to the existing literature, and will prove helpful to the general practitioner. J.C.E.

The Technic of Local Anesthesia. By A. E. Hertzler, M.D., professor of surgery, University of Kansas. Sixth edition. Price $5. St. Louis: The C. V. Mosby Company, 1937.

The fundamental principles, physiological and pharmacological, that are involved in the use of cocaine, procaine and allied drugs have been omitted in this book. It is, therefore, of practical value only and not suitable as an academic textbook. The anatomy involved is fairly well described, there being some lack of definite topographical landmarks. It might be an aid to the surgeon who uses this method of producing anesthesia only occasionally.

The reviewer is in hearty accord with the author's opinion that local anesthesia should be chosen only for such operations as can be completed with this method. Also that if it is likely to be necessary to supplement with inhalation anesthesia it is better to start the general anesthesia before starting the operation.

Very few surgeons and fewer anesthetists would agree with the statements made concerning spinal anesthesia in comparing it with inhalation anesthesia. Obviously the author is comparing well-given spinal anesthesia with poorly-administered ether or nitrous oxide-ether.

The chapter on intravenous anesthesia was not brought up-to-date since the previous edition, so that it gives a very weak ending to the book.

There are barely enough changes from the previous edition to warrant calling this a new edition. It is not suitable for academic teaching, but may serve as a reference book for the practicing surgeon.

I. B. T.

REGIONAL ENTERITIS

(Continued from page 635)

and roentgenological studies indicated a case of regional enteritis. Operation revealed the characteristic findings involving the terminal ileum as well as another segment proximal to this. The mesenteric glands were striking in appearance. A short-circuit anastomosis was done between normal ileum and the ascending colon. One year later the patient had gained fifty pounds and was free of all symptoms.

Case 4. Female. Age, sixteen.

Following a three months' history of attacks of abdominal cramps and vomiting, this patient finally underwent appendectomy elsewhere when one of the attacks had localized in the right lower quadrant. The surgeon reported that on opening the abdomen he encountered an agglutinated mass of small bowel around the appendiceal region, and, in removing the appendix, a small abscess in the meso-appendix was opened. The appendix, however, was not perforated. Appendectomy did not relieve the attacks of pain and vomiting. There developed a secondary anemia, loss of weight, and a persistent fever of 100° to 101°.

Roentgenological studies indicated an obstruction at the ileocecal valve and a clinical diagnosis of regional enteritis was made. Operation disclosed a hose-like thickening of the terminal ileum, and this, together with half of the ascending colon, was resected and a lateral anastomosis performed by my brother, Reginald. This patient has remained well to date.

Case 5. Female. Age, thirty-five.

This patient stated that for several months she had suffered from attacks of abdominal cramps shortly after eating. Vomiting and diarrhea did not occur. Nothing abnormal was noted at physical examination. X-ray study showed conspicuous evidence of canalization of a loop of distal ileum immediately prececal ("string sign"). A filling defect in the distal ileum was also observed. A clinical diagnosis of regional enteritis was made but has not yet been confirmed by operation.

BIDWELL BETTER LIMBS

Everyone Receives the Personal Attention of G. L. Bidwell the well-known Orthopedic Appliance Expert.

EXPERIENCED LADY ATTENDANT

Artificial Limbs, Braces, Trusses, Elastic Stockings, Crutches, Invalid Chairs, Abdominal Belts.

934 N. WATER ST.
PHONE BROADWAY 4369
MILWAUKEE, WISCONSIN

WHEN DEALING WITH CANCER

Consider the Utility, Accessibility and

LOW COST OF RADIUM THERAPY

LEASING PLAN: Equivalent to radium ownership without CAPITAL investment. You keep possession continuously. We pay insurance and upkeep. Fifty milligrams for $22.50 per month; 100 milligrams $40. Larger amounts in proportion. The initial lease is for a period of one year. New radium. Modern platinum containers.

RENTAL PLAN: Any quantity available by special delivery express. Platinum tubes and needles, and plaques, in all dosage range. The basic rate is $10 for 50 milligrams for 36 hours' actual time of application.

PURCHASE PLAN: Radium in all forms available for purchase in any quantity at the lowest price in the history of the radium industry.

RADON: Radon in ALL-GOLD implants at $2.50 per millicurie.

THE COMPLETE SERVICE FOR RADIUM USERS

Telephone RANdolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building **25 E. Washington St.**

CHICAGO, ILLINOIS

Every detail of your single vision or bifocal prescription carefully interpreted.

Highest quality—Accuracy—Correct Styling

N. P. Benson Optical Co., Inc.

"Established 1913"

MAIN OFFICE: MINNEAPOLIS, MINN.

—Branches—

ABERDEEN
BISMARCK
DULUTH
EAU CLAIRE
LA CROSSE
WAUSAU
RAPID CITY
STEVENS POINT
ALBERT LEA

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE—One used diathermy equipped for autocondensation and cauterization valued at $350, will sell for $50. One Fischer Morris wave generator valued at $450, will sell for $100. One used Static Holtz machine and chair with all accessories; purchase price $2,500, will sacrifice for $300. Communicate with G. J. Maloof, M.D., 19 North Pinckney Street, Madison, Wisconsin.

FOR SALE—$10,000 medical and sugical practice in Wisconsin in town of 1,000. Village of 300 within seven miles (no physician). Hospitals within fourteen miles, open staffs. Roads excellent. Transferable appointments, no property to buy, competition right. Will introduce, leaving to specialize. Address replies to No. 89 in care of Journal.

FOR SALE—Home and office with separate entrance. Partly furnished if desired. Office furniture steel enameled. Northeastern Wisconsin. Twin city population about 30,000. Splendid schools and churches. Hospital facilities available to an able and well-trained man. Terms to suit given on good security. Fifty years in practice. Must retire on account of failing heart. Address T. J. Redelings, M. D., Marinette, Wisconsin.

FOR SALE—One portable 3-10 G. E. x-ray, completely overhauled last year. Price $125. Address replies to No. 74 in care of Journal.

FOR SALE—Elliott treatment regulator used about ten hours. Guaranteed in good condition or money refunded. First check for $125 takes it. Wappler galvanic and wave generator, slightly used, in good condition, cost $500; will take $100. One white enamel Castle sterilzer on stand; sterilizing unit in excellent condition; about six years old; $40. One Burdick infra-red lamp, medium size, fine condition, $25. Address replies to Dr. William Fletcher, Salem, Wisconsin.

FOR SALE—Unopposed practice, office equipment, and drugs in town of 600, eighty miles north of Madison. Good roads, open all year, rich community. Open hospitals twelve and thirty-six miles. Expenses from first week. Price $300, one half down. Address replies to No. 77 in care of Journal.

WANTED—Scandinavian assistant by a general practitioner, owning small hospital, and doing his own surgery in a small western Wisconsin community near Twin Cities. Prefer physician who has tried practicing alone and not found it to his liking, although a recent graduate might be acceptable. Address replies to No. 91 in care of Journal.

WANTED—Locum tenens for four or five weeks in eye, ear, nose, and throat office in industrial city. Address replies to No. 88 in care of Journal.

WANTED—One or two additional specialists to share an excellently equipped and furnished suite in a Milwaukee downtown office building. Secretarial, x-ray, and laboratory facilities provided. Address replies to No. 59 in care of the Journal.

WANTED—General practitioner to associate with and share an attractive downtown office suite with an established eye, ear, nose, and throat specialist in Milwaukee. Would prefer one who desired to work into this specialty in the future. Address replies to No. 72 in care of Journal.

ASSISTANTSHIP WANTED—Young, experienced physician desires position as assistant to general practitioner with possibility of partnership or later buying practice. Address replies to No. 84 in care of Journal.

ASSISTANT WANTED—General practitioner in northern Wisconsin town wishes an assistant. Protestant preferred. Salary to suit. Address replies to No. 87 in care of Journal.

LOCATION AVAILABLE—Village of 500 in south-central Wisconsin. Good educational facilities. Fertile farming territory. Address replies to No. 90 in care of Journal.

LOCATION—Splendid opportunity for Wisconsin registered eye, ear, nose, and throat man. Position open immediately in Milwaukee. Address Dr. V. A. Chapman, 324 East Wisconsin Avenue, Milwaukee, Wisconsin.

LOCUM TENENS —Young physician with twelve years' experience in general practice including surgery would like locum tenens work for two to four weeks. Address replies to No. 78 in care of Journal.

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:—
"Your attention to all minute details in preparation for my defense assured me and gave me complete confidence that all would terminate favorably. I continue with the same confidence in the Medical Protective Company as I did twenty-two years ago when I graduated."

THE MEDICAL PROTECTIVE COMPANY
OF FORT WAYNE, INDIANA
WHEATON, ILLINOIS

IN HAY FEVER

When you prescribe a liquid vasoconstrictor consider three points:

1
Prolonged Effectiveness

'Benzedrine Solution' produces a shrinkage which lasts 18 per cent longer than that produced by ephedrine.

2
Minimum Secondary Reactions

On continued use 'Benzedrine Solution' produces practically no secondary vasomotor relaxation.

3
Real Economy

'Benzedrine Solution' is one of the least expensive liquid vasoconstrictors.

BENZEDRINE SOLUTION

Benzyl methyl carbinomine, S. K. F., 1 per cent in liquid petrolatum with ⅓ of 1 per cent oil of lavender.

'Benzedrine' is the registered trade mark for Smith, Kline & French Laboratories' brand of the substance whose descriptive name is benzyl methyl carbinamine.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

EST. SKF 1841

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

Fireproof

SCHROEDER HOTELS

Sleep in Safety

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

NORMANDALE

for

Neuropsychiatric Cases

An institution for the treatment of functional and organic disturbances of the central nervous system, including psychoses.
For further information address:
Dr. I. B. Shulak, Supt.
NORMANDALE
Madison, Wisconsin

WHEN IN MADISON

Visit Your State Offices

Room 305, Washington Building

one block from the Capitol

TO THE DOCTOR'S WIFE

•

It is our conviction that cosmetics should be selected to suit the individual's requirements. We cater exclusively to you, the individual. Our representatives are trained to help you select suitable beauty preparations and to show you how to apply them.

It is only sensible to realize that a truly beautiful skin is first of all a healthy skin and secondly a well-cared-for skin.

Cosmetics serve to enhance your appearance, to present you at your best. In this regard it is well to bear in mind that a natural appearance is by far the most charming.

Carefully selected, and artistically applied, make-up preparations lose their identity as cosmetics and become an indistinguishable part of your personality.

We want it clearly understood that we in no way undertake to treat skin disorders. If you are thus afflicted we had rather that you not use our preparations without the consent of a skin specialist. Our formulary is available to the medical profession.

A card addressed to us will be referred to the manager of the territory in which you reside. It is our pleasure to be at your service.—LUZIER'S, Inc.

Beauty Preparations by Luzier

KANSAS CITY, MISSOURI

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS Phone—Wheaton 66
90 Geneva Road

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S

770 North Water St. **Phone Daly 1461**
MILWAUKEE, WIS.

JAMES ROBBINS, M.D.
Medical Director

E. J. KELLEHER, M.D.

CHRISTY BROWN
Business Manager

PETER BASSOE, M.D.
Consulting Physician

Established 1905

Sanger Brown, M.D.

Kenilworth Sanitarium

Northern Suburb of Chicago

Built and Equipped for the Treatment of Nervous and Mental Diseases

Over Ten Acres
Well Parked and
Landscaped Grounds

Supervised Recreational
and Occupational Activities

Gardening—Hydrotherapy

Address P. O. Box 600
Kenilworth, Ill.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

Send for application for membership in these purely professional Associations

Since 1912

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

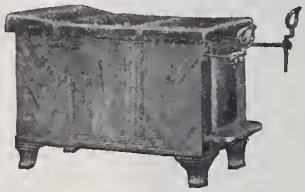
PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Examine

HAMILTON

before you buy

New Furniture



No. 9477 Table (above) $126.00

The No. 9477 Hamilton Nu-Classic Examining Table is modern in every sense of the word—modern in style and modern in its efficient arrangement.

SEE THEM AT OUR STORE

HAMILTON TABLES NOW ON DISPLAY

No. 9460
$165.00
The finest examining table made, conservative, spacious and efficient.

No. 9448
$97.50
A lower priced Hometone Table.

No. 9471
$145.00
The finest table in our modern Nu-Classic Line.

No. 9466-S
$94.00
Our lower priced Nu-Classic Table.

ROEMER DRUG CO.

606 N. Broadway, Milwaukee, Wis.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements

The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course

The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission

A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction

The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities

Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

STEPHEN E. GAVIN, Fond du Lac, President
JAMES C. SARGENT, Milwaukee, President-Elect
A. E. RECTOR, Appleton, Speaker
HENRY J. GRAMLING, Milwaukee, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
A. W. Rogers_____Oconomowoc

Second District:
Frank W. Pope_____Racine

TERM EXPIRES 1937

Third District:
Joseph Dean _____Madison

Fourth District:
W. Cunningham ____Platteville

TERM EXPIRES 1937

Fifth District:
A. H. Heidner_____West Bend

Sixth District:
S. E. Gavin_____Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi_____Galesville

Eighth District:
G. R. Duer_____Marinette

Ninth District:
Joseph F. Smith_____Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler_____Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson_____Iron River

Twelfth District:
Joseph Lettenberger_Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert_____Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland–Bayfield–Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron–Washburn–Sawyer–Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown–Kewaunee–Door	W. P. Tippet, Green Bay	W. A. Killins, Green Bay.
Calumet	A. J. Wagner, Brillion	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia–Marquette–Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purcell, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire–Dunn–Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake–Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	C. G. Richards, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, New Glarus	E. D. McConnell, Darlington.
Langlade	Paul Dailey, Eicho	W. P. Curran, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	H. H. Christensen, Wausau	G. H. Stevens, Wausau.
Marinette–Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Williams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Oneida–Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce–St. Croix	O. H. Anderson, Plum City	A. E. McMahon, Glenwood City.
Polk	W. C. Andrews, Frederic	Earl C. Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price–Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Hulbregtse, Sheboygan.
Trempealeau–Jackson–Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	W. W. Coon, Walworth	E. D. Hudson, Lake Geneva.
Washington–Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	J. B. Vedder, Marshfield	W. G. Sexton, Marshfield.

OFFICIAL HEADQUARTERS HOTEL

of the

STATE MEDICAL SOCIETY OF WISCONSIN

In Session
at
MILWAUKEE
Sept. 14-15-16-17
1937

◈

Permit Us to Extend
a Most Hearty
Welcome
to the
Members of the
Society

◈

HOTEL SCHROEDER

WALTER SCHROEDER, President

Room Reservations should be made now.

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Reeducational Methods Applied.

Building Fireproof

Isolated, Fireproof Psychopathic Department for Acute Mental Cases

Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
JAMES C. HASSALL, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin
PETER BASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office:
Tuesday Mornings by Appointment

1330 Wells Building
Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1-3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
Rock Sleyster, M.D., Medical Director.
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".

DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

The Wisconsin Medical Journal

Ninety-Sixth
Anniversary Meeting
Milwaukee
September 14-17

PROGRAM, PAGES 742-774

COLLEGE OF PHYSICIANS
LIBRARY
SEP 25 1937
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 700

XXVI, Number 9
hington Avenue

MADISON, WISCONSIN, SEPTEMBER, 1937
Copyright, 1937, by The State Medical Society of Wisconsin
Per Year $3.50
Single Copy 50 Cents

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

- A PRIVATE SANATORIUM.
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES.
- CAREFULLY SUPERVISED REST.
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Further Information Write
T. L. HARRINGTON, M. D., Medical Director,
Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

YOU KEEP YOUR PATIENTS
WE KEEP OUR POLICYHOLDERS

● To hold the same clientele year after year is the necessary aim of every professional man—and every Insurance Company. Just as you hold your patients by skill in diagnosis and treatment, by conscientious service and care, Employers Mutuals holds its policyholders by conscientious underwriting of their risks, complete and prompt service, and efficient, economical operation. ● As an indication of this fact, consider that more than 95% of Employers Mutuals policyholders renew their Insurance *without solicitation*—a record of which this Company is justly proud! ● There are many members of the Medical Profession on the list of year-after-year Employers Mutuals policyholders. In the capable, thorough service of this good Mutual Company, and in the savings it returns to them in the form of dividends, they find complete satisfaction. May we not talk to you about your insurance problems? Just phone or write the Employers Mutuals office most convenient to you.

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.

PROTECTION EMPLOYERS MUTUALS INSURANCE Established 1911 SERVICE SAVING

EMPLOYERS MUTUAL FIRE INSURANCE COMPANY

HOME OFFICE **WAUSAU, WIS.**

Branch Offices in Appleton, Eau Claire, La Crosse, Milwaukee, Madison, Racine, Superior and Wausau

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 9

MADISON, WISCONSIN, SEPTEMBER, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

Carcinoma of the Bronchus and Its Treatment by Nathan A. Womack, M.D., St. Louis, Missouri ---- 711

Cardiospasm; Roentgenography Visualization of the Treatment With the Pneumatic Bag by L. E. Fazen, M.D., and T. J. Pfeffer, M.D., Racine ---- 718

Tuberculoma of the Myocardium; Report of Case by A. L. Banyai, M.D., and L. J. Van Hecke, M.D., Wauwatosa ---- 721

Fat Embolism; A Case Report of Cerebral Involvement by John C. McCarter, M.D., Madison ---- 724

Measuring the Tendency to Hemorrhage in Cases of Obstructive Jaundice; With Special Reference to the Photo-Electric Method by Mandred W. Comfort, M.D., The Mayo Clinic, and Kaare K. Nygaard, M.D., The Mayo Foundation, Rochester, Minnesota ---- 727

Meckel's Diverticulum in Sac of Ventral Incisional Hernia; Report of Case by John L. Keeley, M.D., Madison ---- 733

EDITORIALS

Scientific Exhibits and the Hall of Health ---- 734

MISCELLANY

Page

The President's Page ---- 736

The Woman's Auxiliary ---- 737

Society Proceedings ---- 739

News Items and Personals ---- 740

Births, Marriages, Deaths ---- 741

Over 1,200 Physicians Anticipated for Ninety-Sixth Anniversary Meeting at Auditorium, Milwaukee, September 15, 16, and 17 ---- 742

President-Elect of American Medical Association at Smoker Wednesday Evening, September 15 ---- 743

Distinguished Speaker at Annual Dinner Thursday, September 16 ---- 744

Golf Tournament ---- 744

Scientific Program for 96th Anniversray Meeting Wednesday, Thursday, Friday, September 15–17 ---- 745

Members—1937 House of Delegates ---- 752

Scientific Exhibits to Emphasize Practical Application of Newer Developments ---- 753

Technical Exhibitors at the Milwaukee Meeting 757

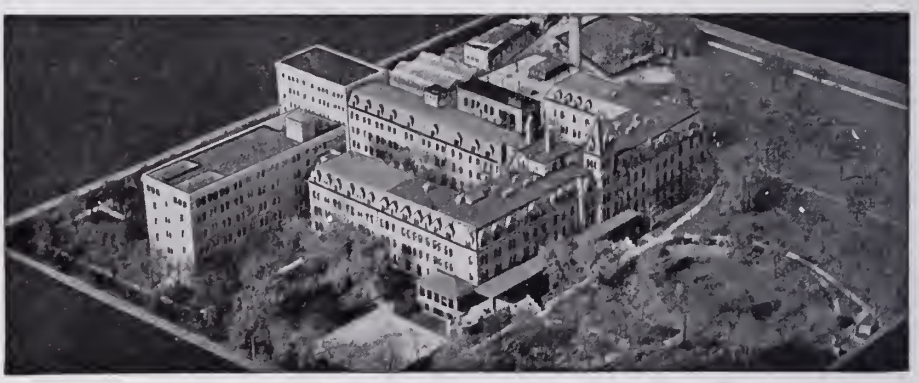
Hall of Health ---- 760

Beware of Swindlers by Frank J. Clancy, M.D., Director, Bureau of Investigation, American Medical Association ---- 776

The Journal Bookshelf ---- 778

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]

"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."



SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physio-mechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M. D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D.
L. Tennyson Peyton, M.D.

When writing advertisers please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **Joel C. Hultkrans, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

NORMANDALE

A modern sanitarium for scientific treatment of functional and organic disturbances associated with nervous diseases.

Specialized treatment of dementia praecox by means of insulin shock therapy.

Neuropsychiatric attending staff.

DR. CHARLES F. ROSENBERG, Supt.

Situated two miles west of Madison, Route 2.

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES.

MEDICINE—Informal Course first of every week; Intensive Personal.

SURGERY—General Course One, Two, Three and Six Months; Two Weeks' Intensive Course Surgical Technique (Operative Surgery with Practice); Clinical Course. Courses available every week.

GYNECOLOGY—Two Weeks' Intensive Course starting September 20 and October 18.

FRACTURES & TRAUMATIC SURGERY—Informal Practical Course; Ten-Day Intensive Course starting October 11.

OPHTHALMOLOGY—Two Weeks' Intensive Course starting September 20.

OTOLARYNGOLOGY—Two Weeks' Intensive Course starting October 4.

UROLOGY—General Course Two Months; Intensive Course Two Weeks; Special Courses.

CYSTOSCOPY—Ten-Day Course every two weeks.

General, Intensive and Special Courses in all branches of Medicine and Surgery starting every week.

Teaching Faculty—Attending Staff of Cook County Hospital

Address: Registrar, 427 South Honore Street, Chicago, Illinois.

TO THE DOCTOR'S WIFE

•

It is our conviction that cosmetics should be selected to suit the individual's requirements. We cater exclusively to you, the individual. Our representatives are trained to help you select suitable beauty preparations and to show you how to apply them.

It is only sensible to realize that a truly beautiful skin is first of all a healthy skin and secondly a well-cared-for skin.

Cosmetics serve to enhance your appearance, to present you at your best. In this regard it is well to bear in mind that a natural appearance is by far the most charming.

Carefully selected, and artistically applied, make-up preparations lose their identity as cosmetics and become an indistinguishable part of your personality.

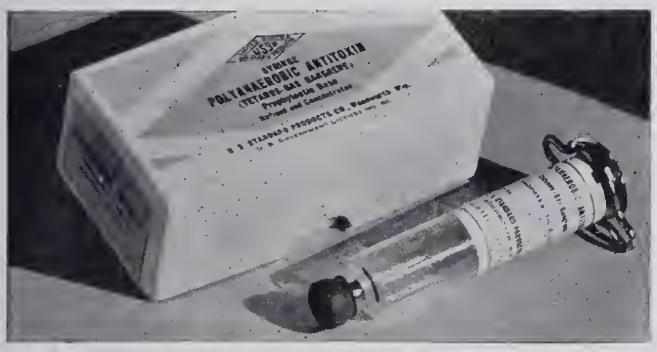
We want it clearly understood that we in no way undertake to treat skin disorders. If you are thus afflicted we had rather that you not use our preparations without the consent of a skin specialist. Our formulary is available to the medical profession.

A card addressed to us will be referred to the manager of the territory in which you reside. It is our pleasure to be at your service.—LUZIER'S, Inc.

Beauty Preparations by Luzier

KANSAS CITY, MISSOURI

TETANUS
GAS GANGRENE ANTITOXIN



Use as a prophylactic agent in cases of compound fractures, lacerated wounds, and postoperatively when indicated, etc. The contents of one syringe is injected at weekly intervals until the wound is healed. U.S.S.P. Laboratories are noted for the production of highly refined tetanus antitoxin. Only young, vigorous and healthy horses are used. The antitoxin is sterile and free from toxic fractions. Write for full information.

U.S.S.P. Laboratories are operated under U. S. Government license No. 65 in compliance with all regulations of the U. S. Public Health Service.

U. S. STANDARD PRODUCTS CO.
WOODWORTH, WISCONSIN

Behind
MERCUROCHROME
(dibrom-oxymercuri-fluorescein-sodium)
is a background of

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.
BALTIMORE, MARYLAND

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter

Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen and silk. Washable as underwear. Booklet shows three different "types" and many variations of each.

Picture Shows "Type N"

For Ptosis, Hernia, Pregnancy, Obesity, Relaxed Sacroiliac Articulations, High and Low Operations, etc.

Each Belt Made to Order. Ask for literature

Katherine L. Storm, M. D.
Originator, Owner and Maker
1701 Diamond Street Philadelphia, Pa.

When acidosis accompanies anesthesia and toxicity follows surgical trauma . . . .

Their effects may be moderated by the administration of Karo before and after operation

WATER BALANCE (24 HOURS)	
Intake	*Outgo*
Drinking Water (600 cc.)	Urine (800 cc.)
Beverages (600 cc.)	Skin (700 cc.)
Solid Food (700 cc.)	Lungs (600 cc.)
Metabolic Water (300 cc.)	Feces (100 cc.)

WHEN carbohydrates are indicated, surgeons prepare patients pre-operatively to prevent acidosis and post-operatively to protect nutrition. Karo serves this dual purpose. Given with a soft diet *before operation* the patient will better resist surgical acidosis. And Karo forced with fluids *after operation* provides vital energy the patient craves.

KARO enriches the glycogen reserves thereby helping to prevent surgical acidosis, decrease post-anesthetic vomiting, stimulate the strained heart and combat shock.

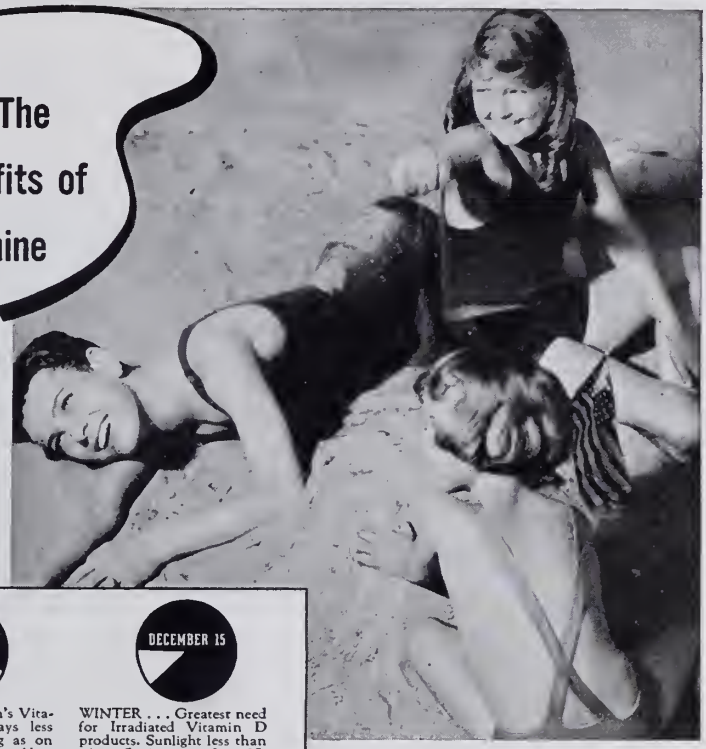
AFTER operation nutrition wanes when the patient cannot tolerate food. Karo with fluids helps maintain the water balance of the body and tides the patient over with basal energy. Karo provides 60 calories per tablespoon. It is relished added to milk, fruit juices and vegetable waters.

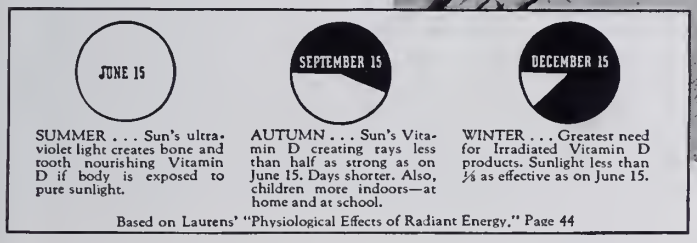
KARO is a mixture of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor), well tolerated, not readily fermentable, and effectively utilized.

For further information, write
CORN PRODUCTS SALES COMPANY
Dept. S.J. 9, 17 Battery Place, New York, N. Y.

★ **Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.**

Can They Get The Vitamin "D" Benefits of Summer Sunshine *all year 'round*





SUMMER . . . Sun's ultra-violet light creates bone and tooth nourishing Vitamin D if body is exposed to pure sunlight.

AUTUMN . . . Sun's Vitamin D creating rays less than half as strong as on June 15. Days shorter. Also, children more indoors—at home and at school.

WINTER . . . Greatest need for Irradiated Vitamin D products. Sunlight less than ⅕ as effective as on June 15.

Based on Laurens' "Physiological Effects of Radiant Energy," Page 44

YES, children can get the tooth and bone nourishing benefits of Vitamin D . . . all year 'round. But not, as the circle charts clearly show, by depending on actual sun rays alone. The effectiveness of the sun's rays is waning rapidly. Children need some other source of Vitamin D effect. Physicians today are recommending, more and more emphatically, the importance of giving children some unvarying source of Vitamin D, such as Viosterol products, irradiated milks, or Vitamin-D-enriched foods, now and all through the year.

The potency of Foundation-licensed Vitamin D products is constantly being checked to assure uniform dependability. The Steenbock Irradiation Process is licensed only for such products as can qualify on the basis of availability, low cost and definite benefits.

Note at the right the list of Foundation-licensed products. It will guide you in recommending pharmaceuticals, milks and other foods of assured Vitamin D potency—that help to build for the children of America, "A Foundation of Strength for the Future."

Viosterol and Viosterol products produced under the Steenbock patents by Abbott, Mead Johnson, Parke-Davis, Squibb and Winthrop.

Irradiated Evaporated Milk—available in every part of the United States and Canada and in many other countries.

Irradiated Vitamin D fluid milk—now available in most large and many smaller cities. Metabolized Vitamin D fluid milk, available in nearly 300 cities.

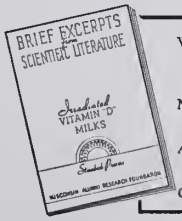
Other Vitamin-D-enriched foods include: Dry Milk and Milk Drink Accessory Foods, Yeast, Breakfast Foods, Cereals and Flour.

Be sure to write for your free copy of "Brief Excerpts from Scientific Literature." This interesting 32-page book is composed of excerpts from reports by recognized authorities.

WISCONSIN ALUMNI RESEARCH FOUNDATION*

MADISON, WISCONSIN

*A corporation not for private profit . . . founded in 1925 . . . to accept and administer voluntarily, assigned patents and patentable scientific discoveries developed at the University of Wisconsin. By continuous biological assays, the public and professional confidence in accurately standardized Vitamin D is maintained. All net avails above operating costs are dedicated to scientific research.



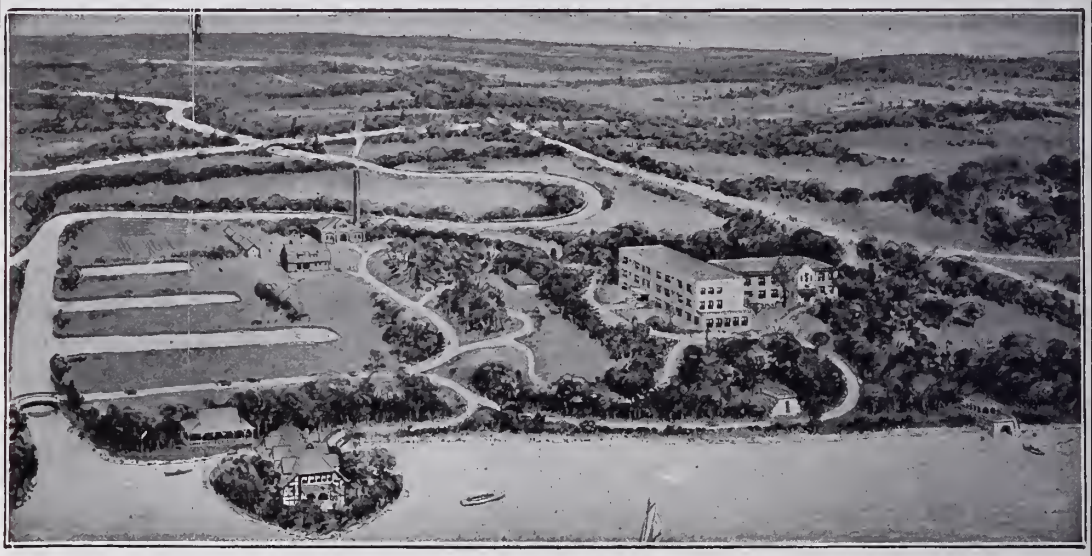
Wisconsin Alumni Research Foundation, Madison, Wisconsin WMJ-937
Please send free copy of 32-page book "Brief Excerpts from Scientific Literature."

Name.....

Address.....

City..... State.....

THE SUMMIT HOSPITAL



Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Insulin Shock

Carbon Dioxide and

Fever Therapy

for selected cases

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

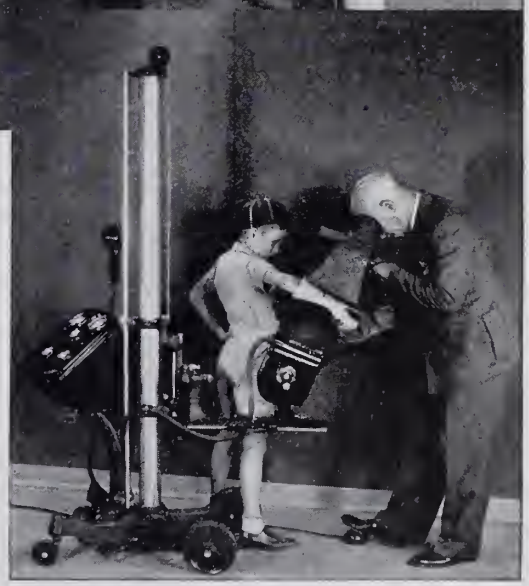
OCONOMOWOC, WIS.

EVEN if you limited the use of an office x-ray unit to those occasional simple fracture cases, think of the intense satisfaction and convenience in having it right at your elbow, ready for instant use when you need it.

The G-E Model "D" Mobile X-Ray Unit is a wonderful ally in the handling of fractures—from the moment the case presents itself, on through until it is brought to a satisfactory conclusion. It enables you to *see* immediately the extent of the fracture, guides you in making the setting, and is your dependable "eye" for subsequent check-ups, to observe progress or to detect a possible mishap under the cast.

Easy and convenient to operate, and 100% electrically safe under all operating conditions, you can rely on the Model "D" for an unusually fine quality of work, both radiographically and fluoroscopically.

Why not enjoy, as do hundreds of other physicians, the advantages of a G-E Model "D" in your office? The added convenience to both yourself and your patients, aside from the better professional service that it makes possible, more than justifies the comparatively small investment required.



Without obligation, ask for Catalog No. A 59 . . . . just jot it down on your prescription blank and mail today.

GENERAL ELECTRIC X-RAY CORPORATION

2012 JACKSON BLVD. CHICAGO, ILL., U. S. A.

In Head Colds And Hay Fever

CONVENIENT AND EFFECTIVE TREATMENT

THE instillation of nose drops is most effective when the patient is reclining with head thrown back. Yet how many of your patients will take the trouble—or, indeed, have the opportunity during the day—to administer nose drops in this manner?

On the other hand, 'Benzedrine Inhaler' is volatile. Its vasoconstrictive vapor diffuses throughout the rhinological tract. Consequently no uncomfortable or awkward positions are necessary for its correct administration.

Each tube is packed with benzyl methyl carbinamine, S.K.F., 0.325 gm.; oil of lavender, 0.097 gm.; menthol, 0.032 gm. 'Benzedrine' is the registered trademark for S.K.F.'s nasal inhaler and for their brand of the substance whose descriptive name is benzyl methyl carbinamine.

BENZEDRINE INHALER

A VOLATILE VASOCONSTRICTOR

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

Quality Prescription Work

Along with every Rx you write goes your reputation for skilled and completely satisfactory optical service.

Remove all doubt by sending your Rx work to us and be assured the glasses you prescribe are fabricated with close laboratory control over each operation.

We are equipped to provide complete service on all types of bifocals.

THE MILWAUKEE OPTICAL MANUFACTURING COMPANY

208 East Wisconsin Avenue Milwaukee, Wisconsin

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St.,
Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268–2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D.,
Frederick Menge, M.D., S. C. Plummer, M.D.

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$37.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department

Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

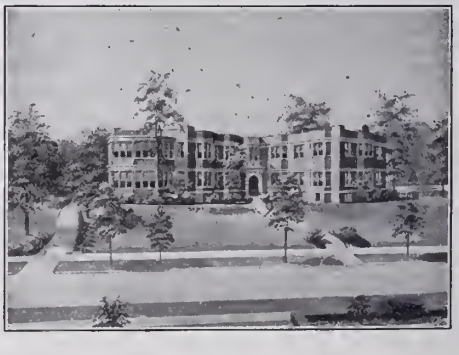
• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years



Physiotherapy Heliotherapy, Hydrotherapy, and Occupational Therapy Departments X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 9 Copyright, 1937, by The State Medical Society of Wisconsin SEPTEMBER, 1937

Carcinoma of the Bronchus and Its Treatment*

By NATHAN A. WOMACK, M. D.
St. Louis, Missouri

TWO decades ago the subject of cancer of the lung was rarely mentioned in clinical literature. It was possible for a medical student to complete his education without having seen a case, just as it was possible for him to engage in general practice for a number of years without making such a diagnosis. Whenever the diagnosis was made it was generally at the autopsy table. It was classed as one of the rare types of cancer and the study of it was generally dismissed with a few words insofar as the clinician was concerned and all important observations relegated to the field of the pathologist.

Today our attitude has entirely changed. Now cancer of the lung is being seen often not only by the specialist in diseases of the chest but by surgeons, bronchoscopists and general practitioners alike. Accordingly interest in the subject has increased. There are perhaps three reasons why this is so. From a statistical study the lesion seems definitely to be increasing in frequency, our diagnostic facilities have improved to the extent that often very early tumors may be recognized clinically, and, finally, during the past few years we have witnessed what is apparently a successful surgical attack in the hands of surgeons equipped to do this type of work. In the short time at our disposal I should like to consider these recent developments briefly.

Adler,[1] in his monograph on lung cancer published in 1912, was able to collect only 374 cases from the literature. During the past 15 years we have seen approximately 200 cases in the Chest Service of the Barnes Hospital in St. Louis alone. That this increase seems to be almost universal can be seen from chart 1. At the present time it seems safe to say that approximately 7 per cent of all cancers have their origin in the bronchi. This is slightly more frequent than is carcinoma of the rectum or carcinoma of the colon and is much more frequent than carcinoma of the pancreas. I mention this because as a matter of practical importance the incidence of a disease should govern largely the place it is to receive when a diagnosis is being attempted.

Etiological Factors

When one considers the numerous factors that may be involved in the etiology of bronchiogenic carcinoma the explanation for this increase in frequency is not easily found. Most primary carcinomas of the lung, if not all, arise from bronchial epithelium. This epithelium is a direct continuation of that of the trachea and varies in arrangement as the bronchus decreases in size. The major bronchi near the tracheal bifurcation are lined by stratified epithelium. There is a layer of round or polygonal cells resting on a basement membrane which can be compared to the basal cells of the epidermis. All growth apparently takes place from these cells. Extending up from the basal cells are three types of cylindrical cells. The first of these is an indifferent cell which seems to have the potentiality of differentiating into either goblet cells or ciliated cells which are the other two types. As the bronchus decreases in size this epithelium thins out, becomes less columnar and by the time the ductus alveolaris is reached it is cuboidal or low cuboidal. Whether the lining of the alveoli is a continuation of this epithelium or not is a much discussed point at the present time and we are indebted to Dr. W. S. Miller, of the University of Wisconsin, for some of the best studies along this line.

* From Department of Surgery, Washington University School of Medicine and Barnes Hospital, St. Louis, Missouri. Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

However this fact need not concern us here. It is important, however, to recall that the mucous glands in the wall of the bronchi apparently have their origin from the bronchial epithelium. Their ducts are largely lined by ciliated cells continuous with those of the lumen of the bronchus and the mucous glands are composed of cells similar to goblet cells. We see, therefore, that all the epithelial elements present in the lung have their origin in the bronchial mucosa.

When adult bronchial epithelium is subjected to long-standing chronic irritation as in inflammation, hyperplasia may occur. This hyperplasia may be a simple numerical type or there may be a preponderance of either the goblet or the ciliated cells. Quite frequently a metaplasia occurs in which the epithelium becomes stratified squamous in character resembling epidermis. This change has been thought by some to be a precancerous lesion, but, unfortunately, clinical and experimental evidence does not offer much support. Certainly chronic pulmonary inflammation does not seem to predispose toward bronchiogenic carcinoma. Only once have we seen it associated with active pulmonary tuberculosis and only once have we seen a long-standing bronchiectasis develop carcinoma. The experience of others appears to be similar for case reports along such lines are isolated. Because of the occurrence of bronchial epithelial hyperplasia in influenza, this has been suggested as a possible cause in the increase in frequency of bronchiogenic carcinoma, but all evidence offered in support of this idea is easily discredited.

Considerable study has been directed more recently at the effect of irritating dusts, pneumoconiosis and silicosis, but up to the present time there seems to be little association between occupation and the occurrence of primary cancer of the lung. An occasional exception to this might be found in those workers in cobalt, nickel, and arsenic. The exhaust gas from automobiles has been suggested as well as the tar particles from roads. In view of the recent interest in certain of the hydrocarbons as carcinogenic agents this offers a very interesting avenue of investigation. But again both the clinical and experimental data are unconvincing. One can only note the increase in the incidence of the disease along with the increase in the exposure to the above substances. The whole question as to etiology may be summarized as follows: chronic irritation offers the best explanation for the increase in frequency of bronchiogenic carcinoma but while opportunities for bronchial irritation are on the increase it has been impossible up to the present time either on clinical or experimental evidence to prove the association on an etiologic basis. Neither has it been possible to explain the fact that approximately 80 per cent of the cases occur in males. And strangely enough it seems that in many places this increase in the occurrence of bronchiogenic carcinoma is taking place in the males rather than the females.

CHART I

INCREASE IN FREQUENCY OF BRONCHIOGENIC CARCINOMA

Author	City	Year	Per cent of carcinoma primary in lung	Year	Per cent of carcinoma primary in lung
Staphelin	Basle	1900	2.1	1926	5.9
Seyfarth	Leipzig	1901–06	5.01	1919–23	8 75
Hanf	Berlin	1903–06	3.3	1922–25	7.5
Wahl	Berlin	1917–22	6.0	1922–27	13.0
Kikuth	Hamburg	1910–14	5.5	1920–24	7.7
VonZulka	Budapest	1904–23	2.5–3.5	1924–27	6.65
Brandt	Riga	1901–05	1–2	1921–25	10–11
Frommel	Geneva	1903	0.33	1924	2.04
Biberfeld	Berlin	1897–06	4.8	1917–25	6.2
Strada	Buenos Aires	1914–19	8.47	1920–25	18.75
Rosahn	Boston	1910–19	4.39	1920–30	6.98

Chart showing the relationship between the percentage of bronchiogenic carcinoma and carcinoma in general. The above figures are collected from autopsy reports.

The lesion has been reported in children, but, as a general rule, it is rare under the age of forty. Like so many carcinomas one finds it is more frequent in individuals between fifty and sixty-five years of age. There seems to be little difference in the frequency of involvement of one lung over the other. Having its origin in the bronchus as does this cancer, the gross picture presented depends to a large extent on the size of the bronchus involved. This site of origin likewise has a considerable influence on the course and treatment of the disease as we shall see subsequently. At the present time a correlation between the gross pathologic picture and the symptomatology may be of interest.

Diagnosis

Cancers involving the lumen of any viscus usually begin as ulcers or very soon become ulcers. As a result hemorrhage in bronchiogenic carcinoma is one of the early and one of the most frequent symptoms. There is nothing characteristic about the hemorrhage as it may be a slight streaking of the sputum or it may be sudden and massive in amount. The presence of the tumor in the lumen of the bronchus acts as a foreign body and as a result there is cough. The productivity of the cough usually depends upon the amount of associated inflammatory reaction. While cough is one of the frequent symptoms in our experience, occasionally it has been absent. It is interesting that in most of such cases the tumor has had its origin in one of the finer bronchioles in the parenchyma of the lungs where local bronchial irritation is not so marked. The third common symptom is one that is not so easily explained. This symptom is pain. It may be due to bronchial invasion or in some cases pleural involvement or to atelectasis. Regardless of its cause it is one of the most characteristic of thoracic pains and the most important of its many features is its constancy. Perhaps no chest pain, unless it be that of aneurysm, remains so fixed. It may not be severe at first. As a matter of fact many patients describe it as a feeling of fullness or unpleasantness rather than acute pain. It is most frequently over the sternum although later, when pleural involvement occurs, it may be elsewhere.

As the tumor increases in size the lumen of the bronchus becomes obstructed. As a result there is atelectasis and bronchiectasis and the amount of each present is definitely proportional to the size of the bronchus occluded. These complications give their own particular symptoms. There is retraction of the mediastinum, pain and dyspnea in the former, and purulent sputum and fever in the latter. And thus it is quite easy to see the reason for the marked variability of the symptoms in bronchiogenic carcinoma. A lesion in the periphery of the lung may present no symptoms until after metastasis, while a tumor situated in a major bronchus may produce marked symptoms early. It is important to bear in mind that the appearance of cough, hemoptysis and pain in a man past the age of forty is suggestive of cancer of the bronchus. If these symptoms are associated with atelectasis or bronchiestasis then the burden of proof rests upon the physician who says that it is not carcinoma.

As in any other disease the actual diagnosis depends upon the demonstration of the pathological lesion. Unfortunately physical signs are of little value. Even when present they are extremely variable and difficult of interpretation. For the most part they generally consist of those signs found associated with the sequelae of bronchial stenosis. In the diagnosis of the lesion the use of the x-ray is indispensable. This does not mean simply a postero-anterior film for even this is sometimes deceptive. It is necessary to utilize the fluoroscope with the patient in various positions and to check this with x-ray films before and after the injection of lipiodol. It must be borne in mind that the lesion here is generally one of bronchial stenosis. The objective of x-ray examination is to demonstrate the presence and position of this stenosis. Sometimes this is not possible for the growth may not have caused complete stenosis.

Probably equally as important as the use of the x-ray in the making of a diagnosis is bronchoscopy. One cannot stress the importance too much of the frequent use of this method in the demonstration of the presence

or the absence of tumor. Unfortunately it is a procedure that can only be done satisfactorily by an expert. Although, at times a tumor cannot be visualized, a skilled observer can obtain information that is invaluable especially as to evidence of pressure on the bronchus from a growth in one of the minor bronchi. Sometimes it is necessary to take several biopsies before cancer cells can be demonstrated, and, at such times a knowledge of the endoscopic picture of cancer is invaluable.

Because such a method of biopsy is not entirely an innocuous procedure, we have made an effort to demonstrate cancer cells in the sputum of patients with known tumors and suspected tumors. Since the majority of such lesions are ulcerating into a bronchus it seemed probable that fragments of tissue would at times be coughed up. The patient was asked to cough directly into fixing fluid and the coagulum was blocked and sectioned. It was extremely difficult to demonstrate malignant cells. Occasionally necrotic masses in which the skeletons of cells were seen could be found, but generally these were from patients with far-advanced disease. The rapid autolysis of tumor cells in pus make this method of little or no value.

Another method of direct examination of tumor cells that we have used is that of the study of centrifuged pleural exudate after the technic of Mandelbaum[2] and Goldman.[3] The centrifuged cells are embedded in paraffin, sectioned and stained as is fixed tissue. The difficulty here is that when a positive diagnosis can be made the lesion is inoperable and past the point of hopeful therapy. It is an indication of pleural involvement. We feel, however, that it is a procedure that should always be done when fluid is present if for no other reason than the information that it gives in regard to operability.

Treatment

After the diagnosis of bronchiogenic carcinoma has been made it is necessary to establish information as to the extent of the lesion before rational therapy can be decided upon. When no obvious metastases are present, this may offer what is perhaps the most difficult problem we have at the present time. As a matter of fact there are occasions when operability can only be determined at exploration. However a thorough knowledge of the method of spread of this tumor may give us considerable aid. It enables us to detect extension earlier and, as we shall show, is often of valuable prognostic help.

Any such consideration of the spread of cancer of the lung must appreciate the lymphatic system of this region. This is a complicated system and in its detail not all observers are in agreement. There are many features fairly well understood, however, and these are of some clinical importance. There

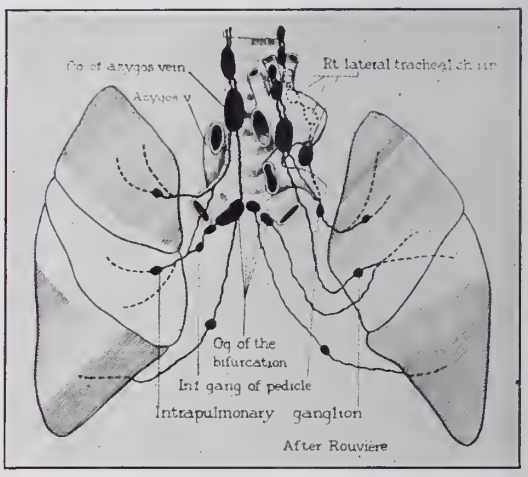


Fig. 1. Figure showing lymph nodes that drain particular areas of lungs. The lower shaded areas drain primarily into the glands at the bifurcation. The middle, white areas drain both into the glands at the bifurcation and into the lateral tracheal glands. The upper, shaded areas drain into the lateral trachael glands primarily.

are two lymphatic plexuses, a deep and a superficial, which communicate with each other and both of which eventually drain into the interlobar nodes and subsequently the nodes at the bifurcation of the trachea and along the sides of the trachea. It is important to realize that the lymph vessels in the submucosa of the bronchi do not connect directly with these nodes. Vessels from the submucosal plexus extend outward between the cartilages to a superficial adventitial plexus and from there into the larger lymphatic channels and their respective regional nodes. The drainage from each lobe is not confined to a certain group of nodes as one would expect but rather depends upon that

portion of the lung involved. This seems to have been recognized first by Most[4] and since then has been confirmed by several investigators including ourselves. We have been able to verify these findings by the injection of carmine suspensions in various portions of the bronchi with the result represented in figure 1, a schematic representation modified from that of Rouviere.[5] It is important that these pathways be recognized. Any operation for carcinoma to be complete must remove the regional lymphatics. In the thorax this may at times be extremely difficult technically and yet the fact remains that a surgical procedure limited to the lobe containing the cancer can be compared to a simple mammectomy in the treatment of cancer of the breast.

In our study[6] of the lymphatic pathways an interesting phenomenon was noted. When a cubic centimeter of a carmine suspension was injected beneath the pleura of the right lower lobe of one dog and a similar amount of the same suspension was injected into the wall of the lower right major bronchus at a point just before it entered the lung in another dog of approximately the same age, the carmine particles were not carried to the regional nodes at the same rate of speed. At the end of five days when the animals were sacrificed, the dog receiving the injection in the periphery of the lung showed lymph nodes colored brilliantly while the animal receiving the injection in the wall of the bronchus showed only a faint trace of carmine in the regional nodes. This experiment was repeated in six sets of animals with injections in the various lobes and their concomitant bronchi. The results were consistent. Apparently, therefore, particulate matter in the wall of a major bronchus was carried to the regional nodes at a much slower rate than was that injected into the periphery of the lung.

Studies of Site

It occurred to us that carcinoma cells might behave in the same manner and a statistical study was carried out to determine if this were true. In a series of forty-four autopsies in which the site of origin could be determined, we found that in twenty-three of the cases the tumor arose in a major bronchus while in twenty-one cases the origin was in a minor bronchus or in the periphery of the lung. Of the tumors arising in the major bronchus, the duration of life from the onset of symptoms to the time of death averaged twenty-six and three-tenths months. Those patients with tumors arising in the periphery of the lung lived on an average of only seven and three-tenths months. Thus, in general, cancer, having its origin in the smaller bronchi, pursues a more rapidly fatal course than a cancer arising in a major bronchus. The same relationship holds true in those patients whose tumor could be visualized at bronchoscopy. We found that those patients upon whom the diagnosis was verified at bronchoscopy lived approximately two and a half times as long as those patients in whom the tumor could not be seen. Therefore, at the present time when we encounter a tumor apparently blocking a major bronchus with no evident signs of distant extension we feel much more optimistic as to the lesion being limited than is the case with a tumor having its origin in the periphery of the lung.

Bronchiogenic carcinoma likewise frequently extends by way of the blood stream. This occurs by erosion generally through a branch of the pulmonary vein. The sites of localization of these metastases are interesting because they present several unique features. The brain was involved in twenty-three per cent of our cases. Many of these patients presented so few pulmonary symptoms that the diagnosis of primary brain tumor was made. So frequently does this occur that we feel safe in stating that any middle-aged patient with symptoms of brain tumor should have the possibility of bronchiogenic carcinoma excluded before operation. Either one or both of the adrenal glands were involved in a third of our patients who came to autopsy. The kidneys showed lesions in approximately twenty-six per cent of our tumors and for this reason the urine should always be searched carefully for red blood cells before operation. Other frequent sites of localization were the bones, the spleen, and the skin.

The microscopic picture presented in carcinoma of the lung is extremely variable. Not

only is it of academic interest but it is at times of prognostic importance. It must be remembered that the malignant cell tends to differentiate into its adult counterpart. In the case of bronchiogenic carcinoma this can be a goblet cell, a ciliated cell, or stratified squamous epithelium. In an abortive effort to form these mature cells, we may see all gradations of tumor growth from round cells resembling the basal cells to fairly mature looking ciliated cells. We may see these various phases of growth in the same tumor. There have been numerous efforts to classify this carcinoma from a cytologic viewpoint and as a result we have seen such terms introduced as adenoid, pavement cell, spindle cell, oat cell, round cell, alveolar, papillary, squamous and mucous gland carcinoma. As we have seen earlier all of these cancers develop from the same basic bronchial epithelium. Such terms, therefore, offer little to our knowledge of the genesis of the tumor. From a cytologic viewpoint they are inaccurate for few tumors are composed of only one single phase of cellular differentiation. From a clinical viewpoint such terms are confusing and are of little practical value. We have contented ourselves, therefore, with the term bronchiogenic carcinoma with no effort at description except that of the relative degree of differentiation present. This relative degree of differentiation seems to be of some prognostic value.

Grades

In tumors in other parts of the body and in tumors that show relatively much less pleomorphism, it has been our experience that any effort to make a prognosis or to dictate the type of therapy for the patient by the examination of one section of a small bit of tissue obtained at biopsy is at times an inaccurate procedure. Because cellular differentiation varies so frequently in different portions of a bronchiogenic carcinoma this inaccuracy must be magnified many times in this tumor. Realizing the above facts we have, nevertheless, made an effort to grade these tumors purely on the basis of the degree of cellular maturity and have been interested to note that there is a definite difference in the length of life from the onset of symptoms to the time of death in various grades. In grade I we grouped those tumors which for the most part tended to present cells that resembled adult ciliated cells, goblet cells or definite squamous epithelium. These patients lived for an average of 22.6 months. Under grade II we grouped those that for the most part were not quite so well differentiated and tended to be arranged in pavement-like groups. These patients lived for an average of 16 months. Grade III was made up of cells that to a large extent resembled those of the basal epithelial layer. In this group fell most of the so-called round cell carcinomas. These patients lived for an average of 12.8 months.

It is generally considered that the degree of cellular differentiation present is dependent upon the rate of growth. This principle, however, is subject to modification by several factors. One of these factors in bronchiogenic carcinoma is probably the part of the bronchus in which the tumor arises. Thus in the bronchioles where adult epithelium is low columnar or cuboidal, one might expect to find a well-differentiated tumor in which there would be no goblet, ciliated or squamous epithelium. Such a tumor would resemble a poorly differentiated type arising in a major bronchus. A prototype of such a condition is found in a squamous carcinoma of the tonsil where keratinization is not so common as in a squamous carcinoma of the skin. It is quite possible that this is the explanation for the relationship between the grade of malignancy and the length of survival. This is more apparent when we note that the majority of our well-differentiated tumors have had their origin in the major bronchi and the majority of our poorly differentiated tumors have had their origin in the bronchioles.

Methods of Treatment

In the treatment of bronchiogenic carcinoma there have been three principal methods of attack. The first of these has been endoscopically with the bronchoscope. The implantation of radon seeds or the destruction of the lesion by means of an electric cautery have been advocated. It is conceivable that the use of such methods might open

the lumen of a bronchus to such an extent as to relieve at least partially some of the atelectasis that is frequently present. The result is better aeration of the diseased lung and a decrease in the size of the atelectatic opacity seen in the x-ray film. This has been interpreted at times as a reduction in the size of the tumor. The subsequent course of the patient generally shows that such is not the case and we are not familiar with a single incidence of bronchiogenic carcinoma treated in such a way in which the patient has been without evidence of recurrence after five years. With cauterization it is perfectly possible to remove a pedunculated tumor endoscopically. It has been our experience, however, that these lesions are generally of questionable malignancy. We certainly doubt the advisability of extensive endoscopic cauterization of an infiltrating carcinoma of a bronchus as an effective method of therapy.

The inaccessibility of the growth and the relative radioresistance of the cells lowers the effectiveness of the local application of radon seeds bronchoscopically. It is quite possible, however, that this method may be of value when used in conjunction with surgery especially in those patients in whom a small amount of tumor must be left in the bronchial stump for technical reasons or in those patients in whom there is a local recurrence in the bronchial stump. There seems to be an increasing amount of clinical evidence that such is the case.

The second method of treatment that has been used is that of x-radiation. The efficiency in the utilization of this agency is improving with such rapidity that it is perhaps wise to limit one's remarks to the experience with past methods. At the same time it is well to realize that taken as a whole these tumors are quite resistant to the effect of x-rays insofar as the present technical application is concerned. The literature is confusing on the subject because of the failure to establish accurate diagnosis by biopsy in so many of the cases. However, I think we can safely say that we are not familiar with a single case of bronchiogenic carcinoma treated by x-ray alone that has survived a sufficient length of time to consider the lesion eradicated. The x-ray treatment of the patients at the Chest Service of the Barnes Hospital has been under the supervision of Dr. Sherwood Moore. Various methods have been used including fractionated doses over a long period of time and all of these have been consistently disappointing. Recently as has been described by Graham[7] a procedure has been employed in which the skin flaps are retracted and a more or less direct exposure to x-rays obtained by placing the tube close to the lesion with much less filtration than is ordinarily necessary. Experience has been insufficient to make any definite claims for this method but it is quite probable that in selected cases it might be found advantageous.

The third method of treatment is that of surgical extirpation of the lesion. While in a few very early cases lobectomy may suffice we cannot but be impressed by the fact that removal of the entire lung with the concomitant lymph nodes offers the best chance for complete removal of the tumor. The operation is a feasible one. Since first performed by Graham and Singer[8] in 1933, it is fairly safe to estimate that it has been successfully done for carcinoma at least twenty-five times. Many of these patients had tumors still local in extension insofar as could be determined and therefore present a hopeful prognosis. The technical aspects of the procedure need not be considered in detail. The approach may be either anteriorly or posteriorly the former as a rule being the more popular. An incision is made along the fourth rib just beneath the breast and the fifth, fourth and third cartilages sectioned. The ribs are spread in lattice fashion and the hilus of the lung exposed. The presence of adhesions adds greatly to the technical difficulties. The vessels and bronchus may be ligated separately or *en masse*. The former is preferable as it enables the performance of a cleaner dissection. The wound is generally closed without drainage, the resulting fluid being aspirated when found necessary. Whether or not the resulting dead space should be obliterated by thoracoplasty or not is still a subject for discussion and need not be considered here. The fact remains that many of these patients seem

to have done satisfactorily with such a cavity present. There are other features about the procedure that only greater experience will be able to standardize. At the present time one can safely say that complete removal of a lung for carcinoma offers the best possibility of permanent relief from the disease and perhaps represents the most dramatic advance in thoracic surgery witnessed in many years. The first patient on whom this operation was performed by Graham and Singer is living and free from any evidence of recurrence four years and four months after his operation.

REFERENCES

1. Adler, I: Primary Malignant Growths of the Lung and Bronchi. New York: Longmans, Green and Company, 1912.
2. Mandelbaum, F. S.: Proc. New York Path. Soc., 178, 1900.
3. Goldman, Alfred: Cyteology of Serous Effusions. With Special Reference to Tumor Cell. Arch. Surg., **19**:1672–1678, (Dec.) 1929.
4. Most, A.: Untersuchungen über die Lymphbahnen an der oberen Thoraxapertur und am Brustkorb. Arch. f. Anat. u. Physiol., Anat. abt. 1–29, 1908.
5. Rouviere, H.: Anatomie des Lymphatics de l'homme. Paris; Masson et Cie, 1932.
6. Tuttle, W. M. and Womack, N. A.: Bronchiogenic Carcinoma: A Classification in Relation to Treatment and Prognosis. J. Thoracic Surg., **4**:125–146 (Dec.) 1934.
7. Graham, E. A.: Primary Carcinoma of the Lung or Bronchus. Ann. Surg., **103**:1–12 (Jan.) 1936.
8. Graham, E. A. and Singer, J. J.: Successful Removal of an Entire Lung for Carcinoma of the Bronchus. J.A.M.A., **101**:1371–1374 (Oct. 28) 1933.

DISCUSSION

Dr. J. L. Yates (Milwaukee): You have realized from the excellence of Dr. Womack's presentation that his training and experience have been gained in an active and progressive thoracic surgical clinic. Successes of Dr. Graham and his staff establish the efficacy of the simple operative procedures employed. The chief difficulty is making diagnoses before the disease has become ineradicable.

Bronchial cancer was a rarity thirty years ago. Consequently, the spontaneous forms of the disease in which heredity is the predominant carcinogenetic influence are exceptional. The majority are induced by irritants derived from petroleum. Cancers thus induced tend to be rather less than more malignant at onset. The first manifestations now recognizable in a sizable proportion of patients are those of metastases or of wide extension and betoken considerable duration. As experience increases, some bronchial cancers are being recognized early and prompt removal suggests the likelihood of protracted recovery. Keener appreciation and more accurate interpretations of earliest signs are developing and will offer to many people an opportunity to be freed of a wretched affliction.

Cardiospasm; Roentgenography Visualization of the Treatment With the Pneumatic Bag*

By L. E. FAZEN, M. D., and T. J. PFEFFER, M. D.

Racine

OUR purpose in this paper is to review briefly the present-day thought relative to the etiology and histopathology concerned with the condition known as cardiospasm, and to present a roentgenographic visualization of the method of treatment with the pneumatic bag.

According to Chevalier Jackson[1] a cardiospasm is: "A very definite syndrome characterized by a failure in the coordinate opening of the diaphragmatic pinchcock at the approach of the swallowed fluids or solids."

Jackson has suggested that the term "preventriculosis" be used instead of cardiospasm since he, as well as other investigators of the subject,[2] believe that the condition is not due to spasm at the lower end of the esophagus. Lendrum,[3] while a Fellow in Medicine at the Mayo Foundation, made an extensive histopathological study of the disease and found no evidence of organic narrowing or fibrosis in or around the lower end of the esophagus, no evidence of a thickened sphincter or hypertrophic oblique muscle of the stomach. He likewise could not demonstrate any "kinking of the terminal esophagus" or "pressure from the liver tunnel," two theoretical conditions which have at times been advanced as etiological causes of cardiospasm.

Ganglion cells in the Auerbach-Meissner's plexus of the esophageal wall have been found to be absent or markedly diminished in number in cases of cardiospasm. This is

* From the Departments of Surgery and Roentgenology, St. Mary's Hospital, Racine.

one observation on which most investigators seem to agree, and which has led to the apparently generally accepted conclusion that cardiospasm is a disease of the myenteric plexus which allows the sympathetic fibers of the lower end of the esophagus to act unopposed, dysphagia occuring as a result of failure of the normal relaxation of the terminal esophagus with the swallowing reflex.

In the early stage of the disease the esophagus tends to compensate for the increased pressure within it and becomes thick-walled. We have observed marked circular or peristaltic contractions in the lower third of the esophagus indicating its effort to overcome the obstruction below.

As the disease progresses the esophagus becomes enormously dilated and somewhat lengthened actually growing in circumference, finally becoming thin-walled with thinning of the elastic tissues and in some cases

Fig. 1. The Mosher pneumatic bag.

fibrosis in the musculature. Jackson states that in such far advanced cases the esophagus will not regain its muscle tone nor return to normal size following treatment even with complete relief of the obstruction.

Symptomatology

The prominent symptoms are: dysphagia, regurgitation, loss of weight, gaseous eructation, discomfort in the retrosternal region. Patients usually think that their obstruction is high up, near the subglottic region. Often they state that they "vomit" when they mean

Fig. 2. This shows the dilated esophagus with the obstructive lesion at the lower end. Characteristic of cardiospasm.

regurgitate. This has often misled their physician into believing that their trouble is due to advanced carcinoma of the stomach, and since this condition may be thought to be hopeless in regard to treatment, roentgenological or other investigation may not be urged. Needless to state, the patient will succumb to starvation unless the obstruction is relieved.

The symptomatology is usually strongly suggestive of the nature of the disease. Roentgenological studies demonstrate very characteristic pathological changes and are usually conclusive. Esophagocopy, however, should not be omitted. In the early stages, x-ray studies may demonstrate no perceptible dilatation, but a definite prolongation of the normal temporary delay in the opening of the diaphragmatic pinchcock.

Treatment

The fundamental requirement as Jackson states is "to stretch the hiatal pinchcock so large that it cannot function." This may be accomplished with the Plummer hydrostatic bag or with the pneumatic bag. We use the pneumatic "barium bag," devised by Mosher, so-called because of linear strips of barium impregnated in the wall of the bougie, enabling it to be visible during treatment under fluoroscopical guidance. The flexible metal director at the end of the instrument is threaded over a string which the patient has previously swallowed until this has become anchored. This is an important precaution since the esophagus may be easily perforated if the instrument should accidentally become engaged in a diverticulum, esophageal fold, or false channel which may be present. During the operative procedure the patient lies in the left oblique position of the fluoroscopical table, so that the procedure may be easily visualized. The bag is inflated until the patient complains of epigastric or low substernal pain. Pressure is maintained slightly below this point, usually between five to eight pounds, for one to two minutes at a time with intervals during which the patient may rest. Following the first treatment, the patient usually experiences striking relief. It may be necessary to repeat the procedure several times before permanent cure is obtained. Other factors are important in the treatment. Stimulants such as coffee should be avoided. A smooth diet should be prescribed. Cold liquids

Fig. 3. This shows the bougie in place at the beginning of inflation. The shadows of the diaphragm are not visible. The central constricted area represents the obstructed area.

Fig. 4. The bag is inflated with five pounds of air pressure and the hiatal pinchcock widely dilated.

should be avoided and all foods should be thoroughly masticated.

The esophagus may be ruptured during the stretching procedure, so that the operation should never be undertaken lightly. Lendrum found that when rupture occurred during treatment with the hydrostatic bougie, the tear was always longitudinal in the mucosa and muscular wall and either entirely above or almost entirely above the junction with the mucous membrane of the stomach. Rupture of the esophagus is usually followed by violent mediastinitis, unilateral or bilateral empyema and death.

Fig. 5. Esophagram taken on week following dilation, showing normal-appearing esophagus with no remaining obstruction.

Case Report

The case is that of a married woman, aged twenty-six years who complained of: "vomiting" of her food, cramping pains in the substernal region, the sensation of food "sticking" in her throat, and loss of weight. The condition had begun ten months before she sought relief and had gradually become worse. She estimated that she had lost forty pounds in weight. The regurgitation usually took place within fifteen to thirty minutes after eating. She stated that the regurgitated material sometimes consisted of undigested food which she had eaten twelve to twenty-four hours previously and that it was frequently foul-smelling. The family history revealed that one brother had died of a diaphragmatic hernia which had become strangulated. The patient's past medical history revealed chorea at eight. She had remained somewhat nervous following recovery from this illness. She had been troubled with eczema about both eyes at one time. Her menstrual cycle was normal. She did not use alcoholic liquors or tobacco. She had been married eighteen months, but was never pregnant. She had continued to do factory work up to the time of her admission to St. Mary's Hospital on March 8, 1937.

Physical examination was essentially negative except for evidence of recent weight loss. Laboratory studies of the urine and blood were normal. Roentgenological studies of the gastro-intestinal tract revealed a smooth uniform conical type of obstruction at the lower end of the esophagus with marked dilatation of the entire remaining portion of the esophagus. The condition was interpreted as cardiospasm.

Following dilatation with the Mosher pneumatic bag, she experienced complete relief of all symptoms and promptly gained in weight. She has had no dysphagia since the treatment three months ago.

REFERENCES

1. Jackson, Chevalier: The Treatment of "Cardiospasm." With Notes on Diagnosis and Etiology. Arch. Phys. Therapy. **15**:172-176 (March) 1934.
2. Hurst, A. F., and Rake, G. W.: Achalasia of the Cardia (so-called Cardiospasm). Quart. J. Med., **23**:491-508 (July) 1930.
3. Lendrum, F. C.: Anatomic Features of the Cardiac Orifice of Stomach. With Special Reference to Cardiospasm. Arch. Int. Med., **59**:474-511 (March) 1937.

Tuberculoma of the Myocardium; Report of Case*

By A. L. BANYAI, M. D., and L. J. VAN HECKE, M. D.

Wauwatosa

TUBERCULOSIS of the myocardium, usually, is not diagnosed clinically, and only a post-mortem examination reveals its presence. According to Valentine,[1] who reviewed the subject in 1894, there were only seven cases of tuberculous myocardial lesions in 3,203 cases of generalized tuberculosis. Norris[2] found but six cases in 1,764 tuberculous individuals. In the more recent literature Horn and Saphir[3] report three instances of miliary tubercles of the myocardium that they encountered among 34 cases of generalized miliary tuberculosis. Pfeil[4]

* From Muirdale Sanatorium, and Department of Pathology, Milwaukee County General Hospital, Wauwatosa, Wisconsin.

found 31 cases, that is 1.5 per cent, of tuberculous involvement of the myocardium in 2,074 patients that died of tuberculosis.

There are three main pathological manifestations of tuberculosis of the myocardium: 1. Miliary type, 2. Solitary, large nodular form, 3. The diffuse infiltrating variety. Some other forms are even less frequent. These are: the chronic interstitial form, with or without cellular hyperplasia; the specific productive myocarditis of Saltykow[5] that is characterized by a new growth of connective tissue with round cells and giant cells and with much granulation tissue; and the Aschoff nodule like forms described by Masugi and his associates[6] and found by them either as the only tuberculous pathology of the myocardium or together with typical Aschoff nodules in the heart muscle.

The large, solitary tuberculoma occurs in two forms: a homogenous unit; or the conglomeration of a group of smaller tubercles. Its origin may be hematogenous through the coronaries, lymphogenous, or by direct contact and spread from the pericardium. A simultaneous or foregone tuberculosis of the pericardium is common. The relative frequency of myocardial tuberculosis of the right auricle that is closely situated to the bronchial lymph nodes speaks in favor of the direct spread of the disease from this source according to Horn and Saphir. In rare instances the size of a conglomerate tuberculoma may reach surprising proportions. Pfeil quotes Eisenmenger, Hartog, and Maresch who reported tuberculomas of the myocardium the size of a hen's egg.

Solitary tuberculoma may heal by fibrosis or calcification. Most of the cases reported in the literature, however, persisted in an active stage until the patient's death. Rupture of the left ventricle caused by a large solitary tubercle was seen in a case of Oudenal.[7]

Case Report

L. J., a female, aged 34, colored, was admitted to the sanatorium on March 21, 1935. Family history and past history were irrelevant. Onset of present illness with fever, cough and thoracic pain two months before admission. Complaints: malaise, slight dyspnea, loss of weight. General physical examination revealed no disease, except in the chest, where pleurisy with effusion was found on the left side. The roentgenogram showed a moderate pleural effusion. Laboratory findings: Red blood cells, 3,900,000; Hemoglobin, 52 per cent; Color index, .6; White blood cells, 10,300; Neutrophiles, 58; Segmented neutrophiles, 52; Lymphocytes, 27; Immature neutrophiles, 4; Metamyelocytes, 2; Eosinophiles, 4; Basophiles, 3; Monocytes, 8 per cent. The red cell sedimentation rate was moderately rapid (88 per cent). Wassermann and Klein tests were negative. Urine analysis: negative. Tuberculin test: positive. Sputum: negative for tubercle bacilli, except on one occasion, eight months after admission.

During her sanatorium stay she had a febrile temperature, and complained of lack of appetite, dizziness, nausea, gastric and abdominal distress. No evidence of intestinal tuberculosis was found on roentgenological examination. Repeated attempts at removal of fluid from the pleural cavity failed, although a previous exploratory puncture showed the presence of a clear, straw-colored effusion. No improvement followed a left phrenic nerve block that was performed one month after admission. On August 12, 1936, she developed symptoms and signs of meningitis. Examination of the spinal fluid showed a cell count of 305 per cm., pellicle formation, sodium chloride: 560 mg. and glucose 15.4 mg. per cent. The Pandy, Nonne-Apelt, and Levinson tests were positive, while the Wassermann and Klein tests were negative. The colloidal gold test was: 0000122111. She expired on August 16, 1936.

Post-mortem findings; Macroscopic examination. On removing the sternum it was seen to be penetrated by a tuberculous process just above the angle. This process connected with a small, cold abscess in the superior mediastinum. This process was evidently long-standing. A similar bony lesion was present in the third, left rib having caused there a pathologic fracture.

The leptomeninges showed a nodular tuberculosis characteristically soft, greenish-gray, and had a typical caseous consistency. Each of them were approximately pea-sized. Those of the cerebellar cortex lay immediately beneath the leptomeninges and in this region several tuberculomas tended to become confluent.

The right lung showed an acute, fibrinous pleuritis which caused lobar adhesions. Section into this lung showed a confluent bronchopneumonic process in the upper lobe. There were discrete pneumonic areas in the lower lobe and a marginal atelectasis. The hilus lymph nodes were essentially normal. The left lung was completely atelectatic, apparently due to massive thickening of the entire left pleura with a small area of fluid in the left axillary region. No tuberculosis was seen within this lung. Its hilus lymph nodes were small, pinkish-gray, and soft. The left pleura, which was 3 cm. in thickness in its thickest portion, showed a marked fibrosis and in its middle layer there were large, caseous nodules.

Tracheobronchial lymph nodes were apparently normal.

Heart was slightly hypertrophied. The parietal pericardium, near the base of the right ventricle, anteriorly, was congested. The surface of the right ventricle showed a raised, yellowish-gray, sub-epicardial nodule, 2 cm. anterior to the pulmonary artery. This nodule was palpably firmer than the myocardium. Section into the right ventricle showed this nodule to project into the chamber in a similar manner as it projected above the surface of the heart. It measured 12 mm. in thickness. It was yellowish-gray in color, and from its cut surface some, caseous material could be removed. There was no evident endo- or pericarditis in this region, although the corresponding congested area of the parietal pericardium may have been due to rubbing of this small mass. The right ventricle averaged 5 mm. in thickness. The valves of the right heart showed no apparent changes.

Fig. 1.

The myocardium of the left ventricle measured 16 mm. in thickness at the base and 6 mm. at the apex. It was soft and of a pale, grayish-brown color. The valves of the left heart were normal.

The foramen ovale was closed.

The coronary vessels were patent and elastic.

The aortic and pulmonary arteries showed no changes.

Liver was soft and on section showed only an indistinct structure and a grayish-brown parenchyma.

Spleen was considerably enlarged, rather soft, and its capsule was normal. Cross section, however, revealed a reddish-brown pulp with follicular hypertrophy. Within the spleen were seen numerous, small, caseous nodules, ranging in size from millet seed to a pea.

Both kidneys were unusually pale and soft and showed distinct structures. There were some, small, localized, congested areas in the cortices.

Uterus showed an anterior scar of a previous cesarean section.

The tubes and ovaries were normal.

The urinary bladder, ureters and pelves were normal.

Microscopic examination. Revealed a great variety of tuberculosis lesions in all organs.

The tuberculomas of the brain showed large, caseated areas with fibrosed borders and no giant cells. The leptomeninges showed typical, early tubercules in intimate relationship with small vessels, some of which were thrombosed. The cellular reaction was characteristically of epitheloid and small, round cell.

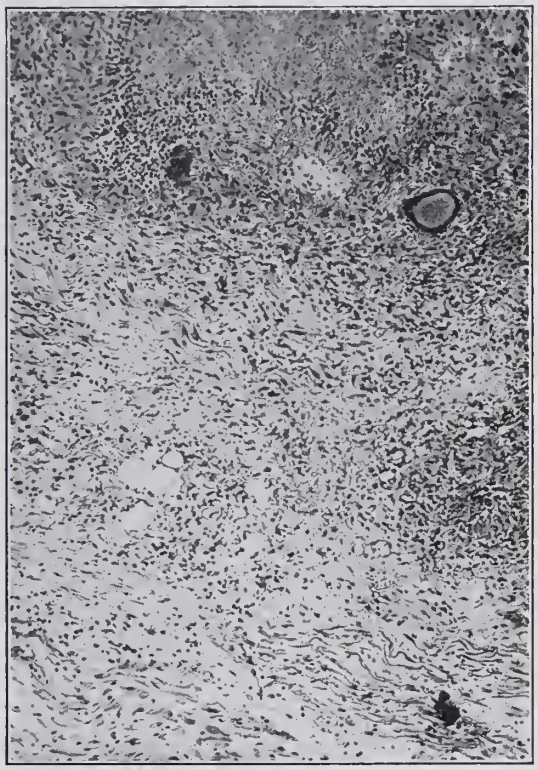


Fig. 2.

The left pleura showed fibrocaseose tuberculosis of evidently long-standing.

The left lung was atelectatic but within could be seen very early epitheloid and lymphocytic reactions suggestive of a very recent miliary spread. An occasional giant cell system could be seen.

The right lung showed a bronchopneumonia especially prominent in the upper lobe with almost totally a polymorphonuclear reaction. Within this lung, however, there were also several, very small, apparently very early, miliary tubercles.

Heart: The large tuberculoma of the ventricle showed a typical fibrocaseose, active tuberculosis. The peripheral, cellular reaction was largely fibrous, lymphocytic and epitheloid, with numerous, large giant cells present. The muscle fibers entering the

region of the tuberculoma showed advancing necrosis with complete destruction and replacement by fibrous tissue. There was a small amount of myocardium on either border of the tuberculoma. The caseous area presented characteristic amorphous, granular material. The myocardium of the left ventricle showed shrinking of the fibers and marked fragmentation. The nuclei were unequal in size and and the cross striations were indistinct in some areas and clearly evident in others.

Summary

A case of generalized tuberculosis is reported in which a tuberculoma measuring 12 mm. in diameter was found in the wall of the right ventricle of the heart on post mortem examination. Clinical symptoms and signs attributable to this myocardial tuberculoma were not manifest during the life of the patient.

REFERENCES

1. Valentine, G.: Contributions to the Study of Tuberculous Myocarditis, These d. Paris, 1894.
2. Norris, G. W.: Tuberculosis and Heart Disease. Am. J. M. Sc., 128:649–668 (Oct. 1) 1904.
3. Horn, H. and Saphir, O.: The Involvement of the Myocardium in Tuberculosis. Review of Literature and Report of Three Cases. Am. Rev. Tuberc., 32:492–506 (Nov.) 1935.
4. Pfeil, K.: Contributions to Cardiac Pathology in Pulmonary Tuberculosis. Beitr. z. Klin. d. Tuberk., 89:161–175, (Feb.) 1937.
5. Saltykow, S.: Specific Productive Myocarditis. Verhandl. deutsch. path. Gesellsch. 17:321–324, 1914.
6. Masugi, M., Murasawa, S. and Yä, S.: The Occurrence of Aschoff-body like Granulomas in the Heart of a Patient with Pulmonary Tuberculosis. Tr. Soc. Path. Jap. 26:60–68, 1936.
7. Oudenal, quoted by Pfeil, K.: Contributions to Cardiac Pathology in Pulmonary Tuberculosis. Beitr. z. Klin. d. Tuberk., 89:161–175 (Feb.) 1937

Fat Embolism; A Case Report of Cerebral Involvement*

By JOHN C. McCARTER, M. D.
Madison

THAT liquid fat derived from trauma to fat tissues of the body often gains entrance to the torn ends of veins in the region has long been recognized. The experiments of Virchow in 1862 proved that such fat is transported through the veins to the right heart and into the pulmonic circulation. The fat droplets, being too large and too viscous to pass the pulmonic capillaries readily, become impacted. With a rising pressure in the pulmonic circulation some of the fat is forced on through the pulmonic capillaries, enters the systematic circulation, and again forms emboli in the capillaries of various organs, notably the brain and kidneys. Depending on the extent of the capillary obstruction and the susceptibility of the organ involved, more or less serious symptoms or death may ensue.

A number of circumstances combine to force the attention of physicians and pathologists on this rather neglected condition. A well-fed population, a rapidly increasing toll of automobile accident injuries, and steadily increasing surgical interventions are among these circumstances.

That fat embolism occurs much more frequently than commonly assumed is indicated by the report of Wright.[1] In 100 consecutive autopsies he examined the lung for fat emboli, and found them in 52. Of these, in three cases the fat embolism played a major role in causing death: 1. A case of convulsions following a cerebral accident; 2. A case of alcoholic delirium necessitating restraint; and 3. A case of multiple fractures.

Many types of trauma may result in the liberation of enough fat into the veins to cause serious symptoms or death. Cases have been reported following:

1. Fractures of all kinds.
2. Concussions.
3. Amputations.
4. Manipulations of bones, especially when atrophic bones are involved.
5. Osteomyelitis.
6. Crushing or infection of subcutaneous fat.
7. Surgery on obese individuals.
8. Labor and delivery.
9. Burns of the skin.
10. Subcutaneous injections, as in antiluetic treatment.

Diagnosis and Treatment

Warthin,[2] in a very complete discussion of the subject, set forth clearly the clinical picture. He pointed out that two chief symptom

* From the Department of Pathology, University of Wisconsin Medical School, Madison, Wis.

complexes are encountered. When sufficient fat has become impacted in the lung capillaries, the cardio-respiratory complex results. This consists of dyspnea, tachypnea, cyanosis, symptoms of pulmonary edema such as cough with frothy sputum, tachycardia, lowered blood pressure and increased venous pressure.

With or without this set of symptoms preceding, the cerebral symptom complex may occur. This consists of headache, drowsiness, stupor, hallucinations or delirium, and deepening coma. These occur without signs of neurological localization or of increased intracranial pressure.

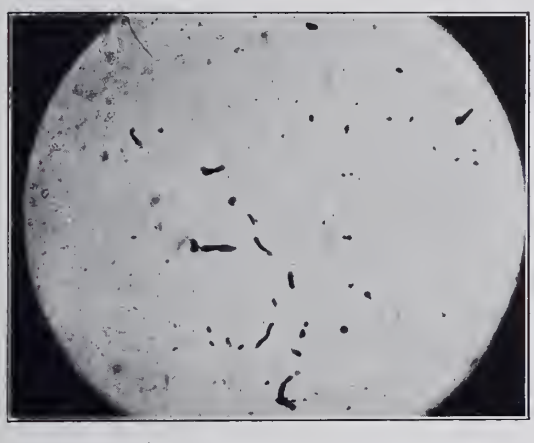


Fig. 1. Brain. Fat emboli in many capillaries of pons. (Low power.)

Other aids in diagnosis include the finding of fat droplets in sputum or urine; the finding of skin petechiae; and a slowly rising fever which aids in distinguishing the condition from shock.

Groskloss[3] in his review article stresses the importance of a distinctive sequence which occurs in all cases. This sequence is: trauma, involving fat-bearing tissues; a free interval with no symptoms (of hours or days); onset of acute cardio-respiratory or cerebral symptoms; death or recovery.

The articles of Warthin, Gauss,[4] and Groskloss set forth the clinical pictures and pathologic bases for the intravitam diagnosis of fat embolism. It is to be noted that in general the condition has been regarded by clinicians as one to be diagnosed at the postmortem examination; and undoubtedly the pathologist also has failed often in the diagnosis. An appreciation of the increasing frequency of occurrence of fat embolism will obviate this oversight.

Treatment is largely preventive. Of extreme importance is the avoidance of long transport or the jarring or shaking of an individual who has suffered trauma. The use

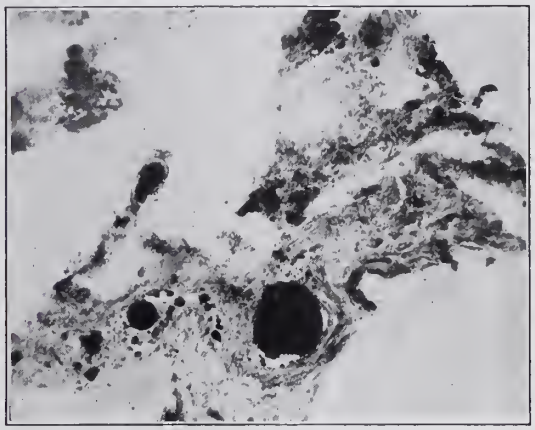


Fig. 2. Lung. Occlusion of capillaries and an arteriole with fat. (High power.)

of tourniquets or even the ligation of venous return from an area of fat trauma may be desirable. Free drainage, where feasible, will allow liquid fat under some tension to flow to the surface and thus prevent entrance into veins. Great care must be taken in bone manipulations, especially when atrophic

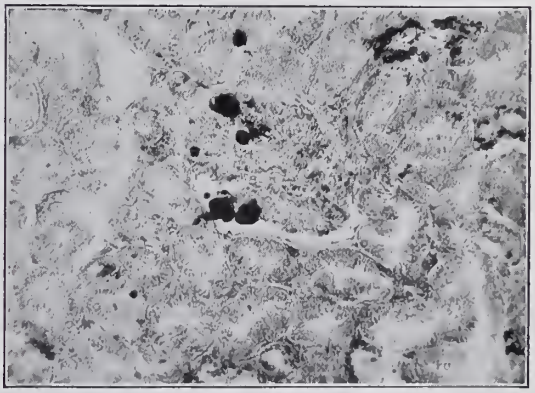


Fig. 3. Kidney. Fat emboli in glomerular and intertubular capillaries; some fat droplets in capsular space. (High power.)

bones are involved. The use of the chisel in bone operations is to be avoided. After the onset of symptoms general supportive meas-

ures alone are available. In this category are oxygen by nasal catheter and caffeine. Intravenous infusions of physiological saline, which have been recommended in the past, are contraindicated by the increased venous pressure.

Case Report

An illustrative case report, in which the cerebral symptoms were outstanding, is presented herewith:

C. O., white male, aged 43, was admitted to Wisconsin General Hospital at 10:50 p. m., October 21, 1936, unconscious and in shock. He had been in an automobile accident a short time previously, and, after receiving one-quarter grain of morphine and a splint to the left forearm at the roadside, had been brought to the hospital.

Physical examination showed an unconscious man with lacerations of the right ear and forehead. Several ribs on the right side were fractured in approximately the anterior axillary line. The left forearm, in a temporary splint which was not removed, was later shown to have both ulna and radius fractured. There was an obvious fracture of the upper third of the right femur with prominent deformity. Abrasions of the right knee and swelling of the left knee joint completed the positive findings.

The administration of heat and oxygen by nasal catheter resulted in a temperature 100.4° axillary, pulse 96, respirations 30, and blood pressure 115/65 two hours after admission. This permitted strapping the right chest and application of a Thomas splint to the right lower extremity. The patient began to respond about this time. By the following morning he was quite clear mentally, and remained rational for several hours. But slowly he sank into stupor interrupted by periods of restlessness, although the temperature, pulse, respirations and blood pressure remained quite stable near the above levels. Coarse rhonchi were relieved by the removal of mucus from trachea and bronchi by endotracheal aspiration.

On the following day, Oct. 23, a divergent squint, irritability and restlessness, irrationality, urinary and fecal incontinence, and vomiting indicated further cerebral involvement, and lumbar puncture produced clear fluid under pressure of 24 mm. of mercury. This was reduced to 14 mm., and 50 per cent sucrose intravenously with limited fluids was prescribed. It was thought that there was an extradural hemorrhage, but no localizing signs were present. A second lumbar puncture that evening produced clear fluid under 28 mm. of mercury pressure. Lumbar punctures and dehydrating procedures were continued. Following each lumbar puncture there appeared to be temporary relief of restlessness.

On October 24 the intraspinal pressure was 8 mm. of mercury and there remained a lack of localizing signs. These dictated conservative treatment. Rales were heard in both lungs, and a progressive bronchopneumonia together with a 20 per cent pneumothorax on the right greatly embarrassed respiration. Repeated lumbar punctures never showed a pressure over 20 mm. of mercury, and the fluid remained clear. Dehydration was continued as well as oxygen by nasal catheter. The blood pressure varied between 130/50 and 150/70, the pulse remained about 96 per minute, and the respirations varied from 34 to 48. The patient's coma deepened, and he died on October 26.

Autopsy. An autopsy performed three and one-half hours after death revealed fractures of the second to seventh ribs on the right, of the left radius and ulna, and of the right femur. There were lacerations of the right ear and forehead and of the right forearm, and abrasions of the right knee. The fractured right fifth rib had lacerated the parietal pleura and a small amount of blood-stained fibrinous exudate was found in the cavity. The posterior and inferior portions of both lungs contained many patchy areas of bronchopneumonia and the small bronchi were filled with purulent exudate.

The examination of the head showed the laceration in the right frontal region, but there was no fracture of the skull. There was no extra- or subdural hemorrhage. The brain, which weighed 1,330 grams, was edematous and the surface vessels were heavily congested. There were no lacerations or compression of the brain. Gross section after fixation disclosed only congestion and many irregular areas in which there were minute petechial hemorrhages. There were no gross areas of infarction.

Gross examination of the other viscera revealed no other notable lesion.

The microscopical examination confirmed the bronchopneumonia. It was noted in the hematoxylin and eosin sections that many capillaries appeared distended but contained no blood cells. Frozen sections of lung, kidney and brain were cut and stained with sudan III and these disclosed the presence of true fat in many capillaries in these organs. In the kidney the fat emboli chiefly occupied capillaries of the glomeruli, but were seen in intertubular capillaries. Large numbers of capillaries in the alveolar walls in the lungs were plugged with fat. Many fat emboli were found in capillaries in sections of cerebral cortex, basal nuclei, pontine region and medulla. Other sections of these same blocks of brain tissue showed numerous perivascular hemorrhages, more or less advanced nerve cell degeneration, and early degenerative changes in myelin sheaths.

The primary cause of death was multiple fractures of long bones with release of fat and multiple fat emboli. Undoubtedly the fat emboli in the lungs contributed to the lowered resistance to infection. The reduction of capillary blood supply in the brain explained the symptoms referable to the central nervous system.

Comment

Although the complications of head injury, partial pneumothorax, and developing bronchopneumonia were misleading, the circumstances in this case were such as to make a clinical consideration of fat embolism of primary importance. The patient had received extensive trauma to fat depots, there was a "free interval," and this was followed by acute cerebral symptoms.

Since submission of the original manuscript, an additional case has been seen in the pathological series. A very brief summary is of confirmatory value.

J. R., a white female, aged 15, was first admitted on July 31, 1936, with a septic arthritis of the left hip. Drainage was instituted, and later a body cast followed by a walking hip spica was applied. After becoming ambulatory she was discharged on May 27, 1937, to return in six weeks.

On the return trip to the hospital on July 13, 1937, in an automobile accident, the patient sustained a supracondylar fracture of the atrophic left femur. The girl was brought on to the hospital, and on admission the fracture was reduced and a cast applied. The following morning her temperature was 103.2°, pulse 140, respirations 40, blood pressure 102/52, and she was dyspneic and cyanotic. A diagnosis of pulmonary fat embolism was made, and oxygen, morphine, and atropine given. However the dyspnea and cyanosis continued, and an increasing cough became productive of frothy sputum and later of brown sputum. An oliguria appeared. On July 15 the patient became very restless and irrational, and expired.

An autopsy revealed the above bone injuries. The microscopic examination revealed large numbers of fat emboli in the lungs, kidneys, spleen, and other organs. There was intense pulmonary congestion, edema, and hemorrhage. Unfortunately permission to examine the brain was not obtained, but undoubtedly there was cerebral fat embolism as indicated by the large numbers of fat emboli in the organs supplied by the systemic vessels.

This case is typical in its progress; and again illustrates the readiness with which atrophic bones will release fat on injury or manipulation.

REFERENCES

1. Wright, R. D.: Fat Embolism. Ann. Surg., **96**:75, 1932.
2. Warthin, A. S.: Traumatic Lipaemia and Fatty Embolism. Internat Clin., 23 Series, **4**:171, 1913.
3. Groskloss, H. H.: Fat Embolism; Yale J. Biol. & Med., **8**:59 (Oct.) 1935.
4. Gauss, H.: Studies in Cerebral Fat Embolism. Arch. Int. Med., **18**:76 (July) 1916.

Measuring the Tendency to Hemorrhage in Cases of Obstructive Jaundice; With Special Reference to the Photo-Electric Method*

By MANDRED W. COMFORT, M. D.
The Mayo Clinic

and

KAARE K. NYGAARD, M. D.**
The Mayo Foundation, Rochester, Minn.

WITH the exception of actual failure of hepatic function, postoperative hemorrhage is undoubtedly the most feared complication following the surgical treatment of obstructive jaundice, and it therefore merits thought directed toward its control. During the past twenty years much has been accomplished in this direction. A better clinical understanding of the problem of hemorrhage has developed, better laboratory methods for measuring the clotting time of the blood have been found, and tests have appeared for measuring the degree of hepatic dysfunction, a factor that has an important bearing on the occurrence of hemorrhage. A review of some of the older as well as the newer means of measuring the tendency to hemorrhage will be of interest to those confronted with the problem of the patient with obstructive jaundice.

* Presented before the 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

** Now residing in Oslo, Norway.

Tendency to Hemorrhage as Measured by Tests of Coagulation of Blood

Methods.—Numerous methods have been devised for determining the coagulability of the blood. For many years we at the clinic have used the method of Lee and White. In this simple test 1 cc. of whole blood drawn from a vein is placed in a test tube 8 mm. in diameter which has just previously been rinsed with physiologic salt solution. Coagulation of the blood is assumed to be complete as soon as the tube can be inverted without displacing the clot. This usually occurs within five or ten minutes. The method of Lee and White[1] has not always proved to be a satisfactory one for routine work.

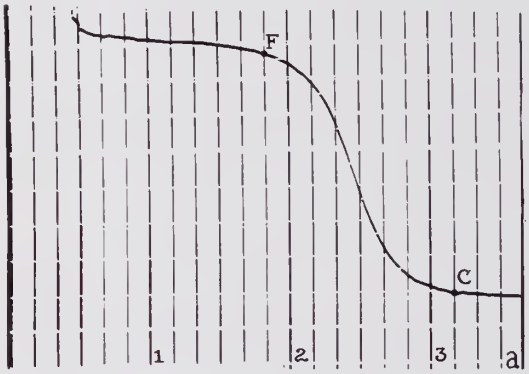


Fig. 1-A. Coagelgram of normal blood plasma showing three main points on curve.

Newer tests have been evolved recently in a search for more accurate methods. In 1932 one of us (Nygaard)[2, 3] re-investigated the so-called prothrombin test of Howell, in which blood plasma is used instead of whole blood. He came to the conclusion that this test was a general test for the coagulability of the blood, and when properly standardized could be used with advantage in clinical conditions of obstructive jaundice, thrombocytopenic purpura, hemophilia, and thrombosis. Baldes and Nygaard[4] then modified this test still further by using a photo-electric cell to follow the process of coagulation. The method is based on the principle of increasing absorption of light during coagulation of the blood plasma. Variations in transmitted light are recorded by means of a photo-electric cell which is connected to a sensitive galvanometer. The deflection of the galvanometer is reflected on a rotating photosensitive paper in a camera, which unit is termed the "Baldes–Nygaard coagelgraph," the graphs obtained being termed "coagelgrams." The advantage of this photoelectric method lies in the fact that the personal element is eliminated; that the process of coagulation is not disturbed during the test by motion of the tubes in which the blood is placed; and that it records the changes earlier and more accurately. Its disadvantage lies in the elaborate apparatus necessary for conducting the test.

The record on the photosensitive paper is particularly suitable for graphic presentation of the physiologic changes noted in the blood during the process of normal coagulation and of the pathologic variations noted in jaundiced patients with hemorrhagic tendencies. In a normal coagelgram (fig. 1-A) three main points are noted on the curve. These points have been designated by the letters F, C, and R; F signifying the point at which fibrin first appears, C the end of the clot formation, and R the point at which serum begins to be expressed from the clot. These three points naturally divide the process of coagulation of the blood into four main phases (fig. 1-B): The first phase, from the 0 point to the first appearance of fibrin (F) is termed the "dissociation" period; the

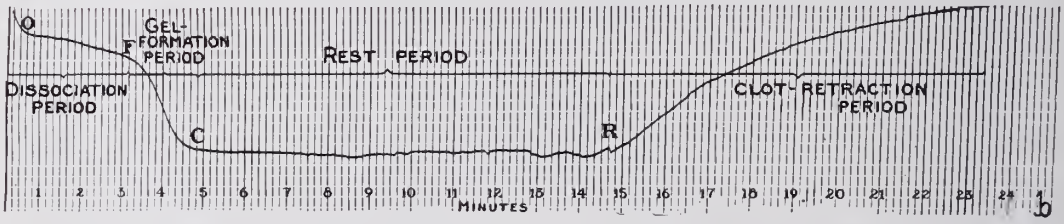


Fig. 1-B. Coagelgram of normal blood plasma showing four phases in process of coagulation.

second period (F to C), dealing with the formation of fibrin and resulting in the formation of a clot, has been termed the "gel-formation" period. During this period less light reaches the photo-electric cell and the curve takes a downward direction. This is followed by a rest period between C and R; and the last phase is termed the "clot-retraction" period. During this last period more light reaches the photo-electric cell and the curve takes an upward direction. Since it is the first three phases of the process of coagulation with which we are particularly concerned, only these phases of the coagelgram are illustrated in the figures.

The series of coagelgrams in figure 2, which were taken in a case of obstructive

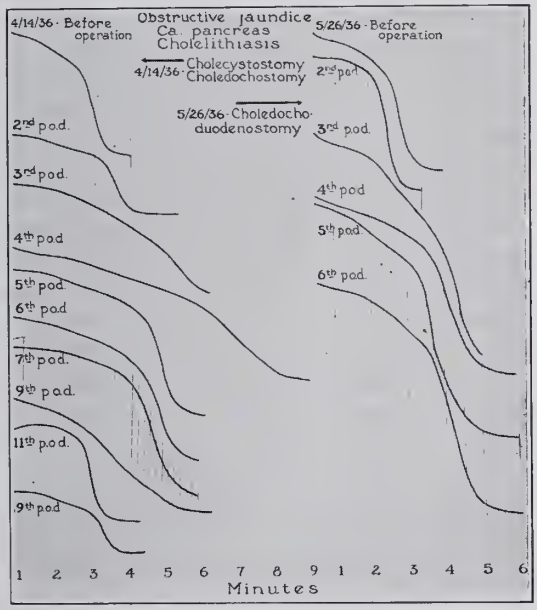


Fig. 2. Series of coagelgrams in a case of obstructive jaundice.

jaundice, show the disturbances occurring in the process of coagulation. It will be noted that no characteristic breaks occur in certain of the curves at the points F, C, and R. When the breaks fail to occur, the point F (beginning of fibrin formation) and C (end of clot formation) may be obtained in a second test by fishing with a wire into the coagulating plasma at intervals of fifteen seconds. It is seen that the first formation of fibrin and the completion of clot formation are delayed, and it becomes apparent that hemorrhage may readily occur. Such a "flattening" of the coagelgram shows at a glance the disturbed processes of coagulation. In practice it is not necessary to determine the points F and C.

Points of importance in the application and interpretation of methods of studying coagulation.—Regardless of the method used, studies of the coagulability of the blood face certain limitations which must be recognized if worth-while information is to be obtained. A glance at the series of coagelgrams in figure 2, which were taken during the postoperative course in a case of obstructive jaundice, will show that changes in the coagulability of the blood take place from day to day. It is obvious that a single test may be of little value, and in order to anticipate satisfactorily postoperative hemorrhage, it is necessary to determine the degree of coagulability of the blood at frequent intervals following operation. The increase in coagulation time, or flattening of the coagelgram, seen so frequently during the postoperative period, is not necessarily a signal of impending hemorrhage. The change may frequently be a temporary one, as it was on the third and fourth days after cholecystostomy and choledochostomy in the case under consideration; the change is indicated in the series of coagelgrams shown on the left in figure 2. The flattening of the coagelgram, or the increase in coagulation time, may be slight and improvement may occur after one or two days. If, however, the increase in coagulation time or flattening of the coagelgram shows a tendency to persist, as was the case in the second series illustrated on the right of figure 2, the danger of hemorrhage becomes real and fatal hemorrhage may occur as it did in this case. Fortunately for purposes of treatment, flattening may persist for several days before the first clinical evidence of hemorrhage occurs, thus giving an opportunity for the energetic use of those remedies designed to combat a hemorrhagic tendency.

Frequent changes in the coagulability of the blood occur also during preoperative treatment. Improvement in the coagulability of the blood may be followed and an op-

timal time for surgical interference chosen only by frequent repetition of the test of choice. Of course, such improvement in the coagulability of the blood does not ensure against hemorrhage occurring postoperatively. In spite of preoperative improvement the disturbance in coagulation often recurs postoperatively and fatal hemorrhage may ensue. Satisfactory improvement in the coagulability of the blood preoperatively should not engender a sense of false security. It merely indicates that the process of coagulation is efficient at the moment. On the other hand, if the process of coagulation has not improved preoperatively following appropriate treatment, operation is carried out at an increased risk even though, as Ravdin, Riegel and Morrison[5] have pointed out, patients with prolonged clotting time are not necessarily the ones who bleed after operation. The possibility of hemorrhage in either case depends on the reserve of the hepatic parenchyma, its ability to withstand the effect of surgical interference, and thus directly on the skill of the surgeon, the trauma inflicted, and the duration of the surgical procedure.

It is readily apparent that, in order to anticipate satisfactorily postoperative hemorrhage, it is necessary to determine the degree of coagulability of the blood at frequent intervals following operation. Changes in this process occur from day to day postoperatively just as they do prior to operation. An increase in the coagulation time, or flattening of the coagelgram seen so frequently during the postoperative period, is not necessarily a signal of impending hemorrhage. The change may be a temporary one; in fact, this is more often the case than not. The flattening of the coagelgram or the increase in coagulation time may be slight and may improve after one or two days. If, however, the increase in coagulation time or flattening of the coagelgram shows a tendency to persist, as happened in the case illustrated in figure 2, the danger of hemorrhage becomes real. Fortunately for purposes of treatment the flattening may persist several days before the first clinical evidence of hemorrhage occurs, thus giving an opportunity for the energetic use of those remedies which appear to be the most efficient in combating a bleeding tendency.

The Tendency to Hemorrhage as Measured by Tests of Hepatic Function

It is undoubtedly true that postoperative hemorrhage is more likely to occur when damage to hepatic parenchyma is great than when it is minimal. Any tests that inform the clinician about the degree of hepatic damage inform him also about the tendency to hemorrhage. Perhaps the most valuable, or at least the tests which we know best how to interpret, are those designed to measure the depth of jaundice. These are: the icteric index, and determination of the concentration of bilirubin in the blood serum. For the latter purpose we at the clinic prefer the Thannhauser–Andersen[6] modification of the original van den Bergh technic. Such tests are of vital importance inasmuch as the naked eye cannot measure accurately the depth of jaundice or fluctuations in its depth, information of real significance in estimating the tendency to hemorrhage and in selecting an optimal time for surgical interference especially when interpreted in the light of the clinical data. This matter of interpretation will be referred to later.

The galactose tolerance test, introduced by Bauer[7] in 1906 but popularized in this country only in the past few years by the clinical studies of Shay, Schloss and Bell,[8] Banks, Sprague and Snell[9] and others, has not proved itself a quantitative test of hepatic damage. A marked excretion of galactose in cases of obstructive jaundice does, however, point to serious parenchymal injury. The hippuric acid test and determination of the concentration of serum proteins, and the ratio of albumin and globulin fractions, are likewise of value in detecting parenchymal damage. Among the first to use the hippuric acid test was Bryan,[10] in 1924; later Quick,[11] and Snell and Plunkett[12] used it. The relationship of serum proteins to hepatic function has recently been studied by Snell[13] and by Bockus,[14] with encouraging results. An excretion of less than 2.5 gm. of benzoic acid, or a reduction in the concentration of serum proteins and inversion of the albumin-glob-

ulin ratio, are reliable evidences of hepatic parenchymal damage. Such tests will sometimes give added information of value regarding the reserve function of the liver, and thus, indirectly, about the tendency to hemorrhage.

Clinical data in determining the tendency to hemorrhage.—Clinical data properly evaluated are of even greater value in measuring the tendency to hemorrhage than are laboratory tests. Thus, in general, it may be said that both the degree of parenchymal damage and tendency to hemorrhage are greater when the patient is weak and debilitated, when submucous or subcutaneous hemorrhages occur, and when the jaundice is deep, increasing in depth, and of long duration; far less so than when the converse conditions occur. Hepatic function is usually adequate and there is little tendency to bleed when the jaundice following biliary colic and obstruction of the common duct is allowed to subside before operation. The danger of postoperative hemorrhage is greater when biliary colics occur so frequently, or when partial or complete obstruction persists so long, that the jaundice cannot clear completely. Surgical interference in such cases should be timed to coincide with a decrease in the depth of jaundice, measured by the icteric index or concentration of bilirubin in the serum. Danger is especially great when the jaundice from chronic obstruction of the common duct due to stone is of many weeks' or months' duration and is more or less fixed in depth. A favorable time for exploration may not be found in such cases, and exploration is often best carried out before further hepatic damage occurs, but, of course, after adequate preoperative preparation has improved hepatic function and reduced the coagulation time as much as possible. The danger of hemorrhage among patients with obstructive jaundice due to stone in the common duct may be even greater in those cases in which very deep jaundice (the presence of more than 20 to 25 mg. of bilirubin per 100 cc. of serum) has resulted from extensive, acute, parenchymal hepatic damage. In such cases it is usually best to defer surgery until the jaundice has cleared up or decreased to the usual depth associated with obstructive jaundice resulting from stone (less than 10 to 15 mg. of bilirubin per 100 cc. of serum).

The danger of hemorrhage as a rule is recognized to be greater in cases of benign or malignant stricture than in cases of stone, inasmuch as the jaundice is usually deeper or of longer duration and the degree of parenchymal damage is greater in the former conditions; in such cases the improvement to be expected is small even if operation is long delayed and treatment is pushed energetically. Experience has taught that exploration should be carried out in cases of malignant stricture as a rule as soon as the jaundice has become more or less fixed at a definite level or as soon as acute, hepatic parenchymal damage has subsided, and in cases of either malignant or benign stricture when preoperative preparation has accomplished as much as possible.

Summary and Conclusions

If data about the general condition of the patient, the presence of petechiae, the type of obstruction, the duration and depth of jaundice, the behavior of the concentration of bilirubin in the serum, the degree of parenchymal damage, and the efficiency of the process of coagulation as measured by laboratory tests, are properly correlated, the possibility of postoperative hemorrhage occurring can be estimated with a surprising degree of accuracy. In this way the best possible time for operation can be determined.

Little jaundice, a good hepatic parenchyma, and normal coagulation time are considered the conditions best suited for surgical interference. Unfortunately such conditions cannot be attained in a considerable number of cases, and when the likelihood of further damage to the hepatic parenchyma is greater than the chance for improvement, operation must often be carried out in spite of the increased risk. Even in cases in which a relatively optimal time can be selected, one will find an occasional case in which hemorrhagic tendencies develop and the patient bleeds postoperatively. It may be a case in which the tendency to hemorrhage never seemed great, or it may be one in which the tendency was great on the

patient's admission to the hospital but became much less during preoperative treatment. Only by testing the clotting time from day to day may such increased hemorrhagic tendencies be detected postoperatively, before the appearance of clinical bleeding and in time for preventive therapy. Fortunately these cases are relatively few, and even more fortunate is the fact that bleeding occurs in only a small proportion of cases in which operation must be carried out in spite of obviously great danger of hemorrhage.

Important in the preoperative preparation of a jaundiced patient are rest in the hospital, an adequate intake of food and fluid, and the control of pruritus. Of value in the treatment of parenchymal damage are a high carbohydrate type of diet, intravenous injections of glucose solution, and intramuscular injections of liver extract. The best remedies for combating a hemorrhagic tendency are intravenous injections of calcium, in the form of the chloride or gluconate, and of glucose, daily, or more frequently, and transfusions of blood. Such treatment should be continued as long as there is prospect of improvement, or at least as long as the prospects of improvement are better than the prospects of further parenchymal damage. Clinical judgment alone is of value in making the choice. Satisfactory response of the hemorrhagic tendency to treatment, as measured by the best available methods of determination, is encouraging. No response to treatment increases the tendency to hemorrhage. Another point to remember, which was made by McVicar and Powelson,[15] is that the effect on the clotting time of coagulants may not be noticeable for more than eight hours after the injection. In the final preparation of the patient with persistently increased coagulation time, the tendency to immediate hemorrhage may be decreased if operation is undertaken during this period.

More and more efficient means for measuring hepatic parenchymal damage and for detecting disturbances in the process of coagulation are being developed. The method of Baldes and Nygaard[4] gives promise of great accuracy. More efficient remedies for combating the hemorrhagic tendency of patients with obstructive jaundice and for preventing damage to the hepatic parenchyma are badly needed. Until these are available, hemorrhages will continue to occur postoperatively in spite of our best efforts.

REFERENCES

1. Lee and White: Quoted by Todd, J. C. and Sanford, A. H.: Clinical Diagnosis by Laboratory Methods. Seventh edition, Philadelphia: W. B. Saunders Company, 1931, p. 228.
2. Nygaard, K. K.: Coagulability of Blood Plasma. Proc. Staff Meet., Mayo Clin. **7**:544–547 (Sept. 21) 1932.
3. Nygaard, K. K.: Coagulability of Blood Plasma; a Method of Determining Hemorrhagic Tendency of Jaundiced Patients. Proc. Staff Meet., Mayo Clin. **7**:691–695 (Nov. 30) 1932.
4. Baldes, E. J., and Nygaard, K. K.: Determination of the Coagulability of the Blood Plasma by the Photo-Electric Cell. Proc. Staff Meet., Mayo Clin. **11**:151–155 (March 4) 1936.
5. Ravdin, I. S., Riegel, Cecilia, and Morrison, J. L.: Coagulation of the Blood. I. The Comparative Values of Calcium and Glucose as Agents for Decreasing the Clotting Time. Ann. Surg. **91**:801–810 (June) 1930.
6. Thannhauser, J. S., and Andersen, E.: Methodik der quantitativen Bilirubinbestimmung in menschlichen Serum. Deutsches Arch. f. klin. Med. **137**:179–186 (Aug.) 1921.
7. Bauer, Richard: Ueber die Assimilation von Galaktose und Milchzucker beim Gesunden und Kranken. Wien. klin. Wchnschr. **56**:20–23, 1906.
8. Shay, Harry, Schloss, E. M., and Bell, M. A.: The Metabolism of Galactose. I. Considerations Underlying the Use of Galactose in Tests of the Function of the Liver. Arch. Int. Med. **47**:391–402 (March) 1931.
9. Banks, B. J., Sprague, P. H., and Snell, A. M.: Clinical Evaluation of the Galactose Tolerance Test. J.A.M.A. **100**:1987–1993 (June 24) 1933.
10. Bryan, A. W.: Clinical and Experimental Studies on Sodium Benzoate; the Value of Sodium Benzoate Test of Renal Function and the Effect of Injury of the Liver on Hippuric Acid Synthesis. J. Clin. Investigation. **2**:1–33 (Oct.) 1925.
11. Quick, A. J.: The Synthesis of Hippuric Acid; a New Test of Liver Function. Am. J. M. Sc. **185**:630–635 (May) 1933.
12. Snell, A. M., and Plunkett, J. E.: The Hippuric Acid Test for Hepatic Function; Its Relation to Other Tests in General Use. Am. J. Digest. Dis. & Nutrition. **2**:716–721 (Feb.) 1936.
13. Snell, A. M.: The Effects of Chronic Disease of the Liver on the Composition and Physicochemical Properties of Blood Changes in the Serum Proteins; Reduction in the Oxygen Saturation of the Arterial Blood. Ann. Int. Med. **9**:690–711 (Dec.) 1935.
14. Bockus, H. L., and Tumen, H. J.: Unpublished data.
15. McVicar, C. S., and Powelson, H. C.: Personal communication to the authors.

Meckel's Diverticulum in Sac of Ventral Incisional Hernia; Report of Case*

By JOHN L. KEELEY, M. D.**
Madison

MECKEL'S diverticulum represents the remains of the vitello-intestinal duct and is present in about 2 per cent[1] of subjects. It is usually found springing from the free border of the ileum in its terminal portion, particularly that part of the small bowel 30 cm. to 1 mm. above the ileocecal valve. The diverticulum may have a free extremity or it may be attached to the umbilicus by a fibrous cord.

Ruysch[2] first suggested the possibility of a diverticulum of the ileum appearing in a hernial sac in 1683. Two cases were reported by Littre[2] in 1700. He described the diverticulum as a secondary formation arising from the intestine opposite the hernial ring. Many other instances of hernias containing this structure were reported, but it was not until 1841 that Riecke[2] suggested calling them Littre's hernias.

Fig. 1. The diverticulum arises from the ileum at the distal end of a line of adhesions which holds the bowel kinked upon itself.

Watson[3] in 1923 collected 147 cases of femoral and inguinal hernias which contained the diverticulum. The incidence was slightly greater in childhood and late middle life. Males predominated (70.6%). The right side was affected three times more frequently than the left and the proportion of inguinal hernias to femoral hernias was three to two. Of the twenty-seven cases of umbilical hernia containing the diverticulum collected by the same author only one was in an adult. Most of the other patients were newly-born infants. No mention was made of the presence of Meckel's diverticulum in the sac of a ventral incisional hernia nor am I able to find any such instance in the literature since 1923.

The diverticulum may lie free in the sac or it may be adherent. Diverticulitis may occur. It is more common than strangulation, the latter condition usually following inflammation and infection. Small or large intestine and/or omentum may be present in the sac in addition to the diverticulum. As in hernias of the small intestine and omentum, strangulation is much more common in the femoral variety.

The presence of a Meckel's diverticulum in a hernial sac is not usually diagnosed preoperatively. It presents symptoms similar to those of appendiceal hernia, partial enterocoele, or epiploitis in a hernial sac. The onset of inflammation and infection in the herniated diverticulum is accompanied by symptoms which are usually not severe. Vomiting is infrequent and obstruction is not complete. A small tumor is felt in the affected region. It increases slowly in size and the local signs of pain, tenderness, and irreducibility are more marked than the general symptoms.

The treatment which is recommended is the radical operation. This consists of removal of the diverticulum and closure of the opening in the intestine either by a

(Continued on page 786)

* From the Department of Surgery, University of Wisconsin Medical School.
** Present address: Harvard University Medical School.

THE WISCONSIN MEDICAL JOURNAL

The Editorial Board

GEORGE H. EWELL, Madison F. GREGORY CONNELL, Oshkosh S. J. SEEGER, Milwaukee

Editorial Staff

GEORGE H. EWELL, Madison, Acting Medical Editor MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

FRANK W. POPE—Racine
JOSEPH DEAN—Madison
W. CUNNINGHAM—Platteville
A. H. HEIDNER—West Bend
S. E. GAVIN—Fond du Lac
H. A. JEGI—Galesville
G. R. DUER—Marinette
J. W. LAMBERT—Antigo
JOSEPH F. SMITH—Wausau
F. E. BUTLER—Menomonie
F. G. JOHNSON—Iron River
JOS. LETTENBERGER—Milwaukee

Annual Subscription—Three Dollars-Fifty Cents Single Copies—Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI SEPTEMBER, 1937 Number 9

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

Scientific Exhibits and the Hall of Health

THE Scientific Exhibit has come to represent what is probably the most noteworthy of the many features of the annual convention of The State Medical Society of Wisconsin. At the 1937 session to be held in the Milwaukee Auditorium, September 15 to 17, there will be over 6,000 square feet of space in the entire Juneau Hall given entirely to the scientific exhibits. Many of the exhibits that were cited by awards at the 1937 Atlantic City convention of the American Medical Association will be on display for the benefit of the physicians of Wisconsin. The Council on Scientific Work of The State Medical Society of Wisconsin decided that the main theme for the 1937 meeting would be preventive medicine. Seventeen physicians composing the Committee of the Health Council and the Child Welfare Committee of Milwaukee County will act as personal demonstrators covering the field of preventive medicine in relationship to whooping cough, diphtheria, tetanus, typhoid, smallpox, scarlet fever and tuberculosis. Exhibits on oral hygiene, fractures, muscle training of the eye; ear, nose and throat; diseases of the gastro-intestinal tract, endocrinology, blood dyscrasias and others will be clearly presented by personal demonstrators. This is an opportunity for the physicians of Wisconsin to become familiar with the most recent advances in these special fields of investigation in which rapid strides are being made each year.

The Council on Scientific Work likewise decided that it was an opportune time to use the main arena of the Milwaukee Auditorium for a popular exhibit to be viewed and studied by the layman. There are 23,000 square feet in this main arena and all of the space will be occupied by exhibits showing the relationship of "scientific medicine and the public." This is a cooperative exhibit showing the unified objective of all of the professions in relationship to health, human welfare and the good of the community. Medicine, surgery, dentistry, pharmacy, nursing and public health work will be exemplified by simple clear-cut exhibits. Human anatomy will be typified by the *Transparent Woman. The Story of Early Human Life* will be shown by a series of exhibits demonstrating the sequence of development of man from a single cell to the time of birth. The

NINETY-SIXTH ANNIVERSARY MEETING

Milwaukee Auditorium, Milwaukee :-: September 15, 16, 17, 1937

relationship of sight and light will occupy the entire stage with an exhibit entitled *The Hall of Sight.* The sympathetic relationship of the individual doctor and the individual patient, without the intervention of a third party, will be portrayed in that magnificent sculpticolor of the painting entitled *The Doctor.* There will be exhibits on cancer, tuberculosis, Bright's disease, heart disease, mechanical and chemical nostrums, objectionable cosmetics, the causes and prevention of burns and accidents, hospitalization, the story of anesthesia, history of x-ray, occupational therapy and surgery.

The Wisconsin State Dental Society will have an exhibit illustrating the teeth and mouth in health and disease. Oral hygiene will be emphasized. An exhibit comparing the rings in the developing teeth with those in the developing tree is worthy of study by every physician as well as by the public.

The Wisconsin Pharmaceutical Association will have an exhibit showing the three parts of a modern pharmacy: (1) library and reception room, (2) prescription compounding unit, (3) laboratory.

The Wisconsin State Nurses' Association will portray the *Milestones of Nursing* by an exhibit. The history of the professional development of nursing with especial attention given to the achievements of the last thirty-five years in the nursing field will be emphasized.

The Milwaukee Health Department will demonstrate by exhibits the conditions in Milwaukee before and after city programs of prevention and correction were instituted. The people of Milwaukee and Wisconsin are proud of the record made by the Milwaukee Health Department and the Milwaukee physicians in the National Health Contest. Milwaukee was awarded first prize, among the larger cities of the United States, for the report compiled by the Milwaukee Health Department for health conservation work during 1936.

The Wisconsin State Board of Health, Madison, will exemplify by exhibits *Preventive Medicine and Public Health.* The intricate supervision of the Wisconsin State Board of Health in relation to the lives of the people in the State can only be realized by a careful study of the details in this exhibit.

The American Medical Association, American College of Surgeons, Medical Society of Milwaukee County, Woman's Auxiliary to the Medical Society of Milwaukee County, Sight Saving Council of Milwaukee, Inc., Wisconsin Anti-Tuberculosis Association, American Society for the Control of Cancer and Wisconsin Division of the Woman's Field Army, Wisconsin Crippled Children Division, Milwaukee Roentgen-Ray Society, Junior League Curative Workshop, Association of American Medical Colleges, National Board of Medical Examiners, Columbia Hospital, Milwaukee Children's Hospital, S. H. Camp and Company, Jackson, Michigan; Petrolagar Laboratories, Chicago; State Laboratory of Hygiene, Milwaukee-Downer College, University of Illinois College of Dentistry, Mayo Foundation, University of Wisconsin and Marquette University are among those exhibitors who have labored during the summer to prepare exhibits for *The Hall of Health* in the Milwaukee Auditorium to be open to the public from September 11 to and including September 17.

The Hall of Health is the most ambitious program that any state medical society has ever undertaken for the good of the individual and public health at the time of its annual convention. Whether or not such an enterprise is worth-while, an enterprise which has involved so much of the time and money of institutional exhibitors, may only be answered by the response of the public during the period that this exhibit is open, free to all, in the Milwaukee Auditorium. This answer will be apparent by Friday night, September 17.

. . . . THE PRESIDENT'S PAGE . . . .

"The Honor and Privilege"

THIS is my last appearance as a writer of the president's page. I want at this time to express my heartfelt appreciation to the members of our State Society for according me the honor and privilege of serving as your president during the past year. In addition to being a rare opportunity, it has been a constant source of pleasure and satisfaction. It has afforded an opportunity of becoming familiar with many of the numerous problems that concern the practice of medicine in this State, as well as the opportunity of making contacts with members of the Society in various parts of the State.

It has made me realize more than I could have realized in any other way what a splendid, earnest, hard-working body of men constitute this Society. The cooperation of both the officers and the members has been perfect.

Slips that may have been made by the president during the past year have been mental rather than of cardiac origin. All in all, an experience of this kind cannot help but do a great deal for any individual who has the honor of serving as your president.

The toughest thing connected with the job for me has been the writing of the president's page, but I presume it was not as tough to write it as it was for you to read it. Anyway, I want to again thank the entire membership for their splendid cooperation throughout the entire year, and to express my admiration for the manner in which the entire profession came to bat when it became necessary.

I will be succeeded in office by one of the most capable and efficient ment in the Society, Dr. James C. Sargent, who, I am sure, when his term expires, will have left a distinct and valuable contribution to our Society.

I hope to have the opportunity of seeing you in very great numbers at the annual meeting in Milwaukee, which meeting I sincerely believe and trust will be the greatest in the history of our organization.

S. E. Gavin

THE WOMAN'S AUXILIARY

President—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
President-Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior

Hygeia Chairman—
Mrs. H. H Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

Final Program for Auxiliary Meeting at Milwaukee Is Announced

UPWARD of 500 members of the Woman's Auxiliary of the State Medical Society of Wisconsin are expected to register at its ninth annual meeting and attend various of the planned events.

Dr. R. G. Leland will be the speaker following the election of officers on Thursday morning. He is an outstanding economist in the field of medical practice and the delivery of medical service, and his message on "Confidence in Your Doctor" will in a large part discuss the position of the doctor with reference to the delivery of medical service.

A trip with guides through the Hall of Health, a luncheon and style show at the Wisconsin Club, a theatre party at the auditorium of Marquette University, and a luncheon and bridge party at the Blue Mound Country Club are features of the meeting.

The final program follows:

TUESDAY, SEPTEMBER 14, 1937

P. M.
6:30 Executive Board Dinner—University Club.
Mrs. Cornelius A. Harper, president, presiding.

Members of the Executive Board are the state officers and directors, state committee chairmen and county presidents. An invitation to attend the pre-convention and post-convention board meetings is extended to the presidents-elect of county auxiliaries.

WEDNESDAY, SEPTEMBER 15, 1937

A. M.
10:00 General Meeting—Banquet Room, 5th floor, Schroeder Hotel.
Mrs. Cornelius A. Harper, president, presiding.

Mrs. C. A. Harper, Madison, President State Auxiliary

Invocation—Reverend A. A. Zinck.
Address of Welcome—Mrs. Eben J. Carey, president, Auxiliary to The Medical Society of Milwaukee County.
Response—Mrs. F. J. Pfeifer, president-elect, Auxiliary to the Waupaca County Medical Society.
Business Session and Reports of County Auxiliary Presidents.

P. M.

1:00 Luncheon and Style Show—Wisconsin Club. Tickets—$1.35.

3:30 Tour — Hall of Health — Milwaukee Auditorium.

8:00 Theatre Party—Comedy Playlet "Mr. Samson"—Cathedral Players—Auditorium, Marquette University School of Medicine.

9:30 Buffet Supper—Banquet Room, 5th floor, Schroeder Hotel.

(Courtesy, State Medical Society of Wisconsin.)

Reservations are limited and must be made before 6:00 P. M. Wednesday, September 15.

THURSDAY, SEPTEMBER 16, 1937

A. M.

10:00 General Meeting, Banquet Room, 5th floor, Schroeder Hotel.

Mrs. Cornelius A. Harper, president, presiding.

Business Session, Election of Officers, Presentation of Gavel.

Induction of the president, Mrs. Oscar W. Friske, Beloit.

Speaker—Dr. R. G. Leland, director, Bureau of Medical Economics, American Medical Association, Chicago.

11:30 Post-Convention Board Meeting, 5th floor Schroeder Hotel.

Mrs. Oscar W. Friske, presiding.

(All county auxiliary presidents and presidents-elect are urged to be present.)

P. M.

1:00 Luncheon and Bridge Party, Blue Mound Country Club.

Both Auction and Contract will be played. Table and door prizes.

Tickets—$1.35.

Transportation for out-of-town guests. Cars leave east entrance of Schroeder Hotel.

6:45 Annual Dinner and Dance (Informal).

Crystal Ballroom, 5th floor, Schroeder Hotel.

OFFICERS, DIRECTORS, AND CHAIRMEN OF THE STATE AUXILIARY, 1936-37

President: Mrs. C. A. Harper, 520 N. Pinckney St., Madison.

President-elect: Mrs. Oscar Friske, 932 Bluff St., Beloit.

Treasurer: Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine.

Secretary: Mrs. Walter E. Sullivan, Shorewood Hills, Madison.

Directors: Mrs. Eben J. Carey, past president 1933–34; Mrs. Rock Sleyster, past president 1934–35; Mrs. Gregory Connell, past president 1935–36.

Program: Mrs. J. H. Weisberg, 320 E. 7th St., Superior.

Organization: Mrs. Willard Pease, Rio.

Press and Publicity: Mrs. F. J. Pfeifer, New London.

Public Relations: Mrs. I. F. Thompson, 1523 Deane Blvd., Racine.

Hygeia: Mrs. H. H. Hull, Brandon.

Archives and Historian: Mrs. Harry Keenan, Stoughton.

Mrs. Oscar Friske, Beloit, President-Elect, State Auxiliary

Parliamentarian: Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee.

Chm. of Nominating Com.: Mrs. James C. Sargent, 2924 N. Stowell Ave., Milwaukee.

OFFICERS, DIRECTORS OF THE WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF MILWAUKEE COUNTY, 1936–37

President: Mrs. Eben J. Carey

President-elect: Mrs. R. G. Washburn

Vice President: Mrs. N. Warren Bourne

Recording Secretary: Mrs. H. O. Zurheide

Corresponding Secretary: Mrs. Norbert Enzer

Treasurer: Mrs. E. J. Schelble

Directors: Mrs. James C. Sargent, Mrs. Henry Gramling, Mrs. William Washburn, Mrs. William Jermain, Mrs. Louis Warfield, Mrs. Edwin P. Bickler, Mrs. J. J. McGovern.

ANNUAL MEETING

Chairman: Mrs. Harold J. Cannon

Co-chairman: Mrs. Edward J. Schelble

Co-chairman: Mrs. Francis D. Murphy

COMMITTEE CHAIRMEN

Registration: Mrs. Raymond P. Schowalter, Mrs. Edward F. Barta.

Headquarters: Mrs. Robert E. Fitzgerald; Junior-Aide—Mrs. Jerome Jekel.

Information and Lobby Hostesses:

Schroeder Hotel: Mrs. Arno Langjahr, Mrs. Thomas Judge.

Hobby Exhibit, Auditorium: Mrs. Charles Fidler, Mrs. Theodore Wiprud.

Auditorium: Mrs. Julius Sure, Mrs. Robert G. Washburn.

Hygeia Booth, Auditorium: Mrs. Harry J. Heeb.

Transportation: Mrs. Robert Brunkhorst.

Flowers and Table Decorations: Mrs. Joseph J. Adamkiewicz, Mrs. William Grotjan.

Table Hostesses: Mrs. James C. Sargent, Mrs. Robert E. Fitzgerald.

Reservations: Mrs. Edward P. Bickler, Mrs. William Kradwell.

Press and Publicity: Mrs. William Scollard.

Luncheon and Style Show:

Wisconsin Club: Mrs. John McCabe, Mrs. N. Warren Bourne.

Buffet Supper: Mrs. Merle Q. Howard, Mrs. R. J. Feldt.

Luncheon and Bridge Party:

Blue Mound Country Club: Mrs. Ralph Bergen, Mrs. William A. Ryan.

Table Prizes: Mrs. Fred Kretlow, Mrs. George P. Dempsey.

Cards and Scores: Mrs. George Pugh, Mrs. William Studley.

Society Proceedings

Dodge

At the special meeting of the Dodge County Medical Society held at the Lutheran Deaconess Hospital at Beaver Dam on August 5, the following business took place:

"A motion was made and carried to rescind the motion passed at the June 24 meeting referring to 'contract practice.'

"A motion was made and seconded that the society go 'on record' as carefully discharging the principles as set down in the By-Laws of the Constitution of the State Medical Society of Wisconsin, referring to 'contract practice.'

"Section 3. By the term 'contract practice,' as applied to medicine, is meant the carrying out of an agreement between a physician and a corporation or organization to furnish partial or full medical services to a group or class of individuals on the basis of a fee schedule or for a salary or a fixed rate per capita.

"Certain features of a contract, if present, make the contract unethical, among which are: When the compensation is inadequate to assure good medical service; when free choice of physician is prevented.

"In reference to the new 'eugenics law' the following was accepted: That the society go 'on record' to have the minimum fee schedule. Examination and Wassermann test—male $3, female $2."

Green Lake—Waushara

A dinner meeting of the Green Lake-Waushara County Medical Society was held at the Chase Hotel at Wautoma on Thursday evening, August 12. Guest speakers for the occasion were Dr. Walter Sexton of Marshfield who spoke on "Infections of the Urinary Tract," and Dr. R. S. Baldwin, also of Marshfield, whose subject was "Diabetes Mellitus."

Kenosha—Racine—Walworth

The annual tri-county conference of the Kenosha, Racine, and Walworth County Medical Societies was held Wednesday, July 28, at Kenosha with more than 125 attending the program of entertainment at the Kenosha Country Club.

A three-hour scientific meeting was followed by golf, bridge, and dancing. Dinner was served at the country club to 125 doctors and their wives.

Milwaukee

Members of the Medical Society of Milwaukee County were guests of the Brook Hill Farm of Genesee and the Gridley Dairy Company of Milwaukee at an outing Thursday, July 29. About 100 were in attendance.

Luncheon was served at Brook Hill Farm at noon and golf was played at the Merrill Hills Country Club in the afternoon followed by a supper in the clubhouse.

Eleventh Councilor District

Dr. C. W. Lockhart of Mellen acted as host for the annual meeting and golf tournament of the Eleventh District Medical Society held at the Mellen Country Club on Saturday, August 7. Forty-six members were present, among whom were Dr. F. E. Butler, councilor for the Tenth District, and Dr. H. A. Jegi, councilor for the Seventh District. Golf was played in the afternoon and was followed by the scientific program and banquet. Dr. S. E. Gavin, president of the State Medical Society of Wisconsin, gave the address of the evening, and his subject was "Legislation Affecting the Practice of Medicine in Wisconsin." At the business meeting Dr. H. A. Sincock was elected president for the coming year and Dr. M. H. Wall, secretary. The scientific program follows:

Dr. J. R. Goodfellow:
"Rest in Psychopathic Cases"

Dr. M. L. Young: Discussion

Dr. James C. Sargent, president-elect
Transurethral Resection: A Milestone in Surgery of the Bladder and Prostate. Discussion.

Question Court: Five-Minute Discussions

Dr. J. R. McNutt:
Should one discontinue deep x-ray therapy because of the resultant fibrosis to the diseased tissue? Does this interfere with surgical interference later?

Dr. F. D. Weeks:
Considering the number of returns of gallbladder colic following the complete removal of the gallbladder, is it best to return to the draining of the gallbladders or continue their removal?

Dr. R. K. Lohmiller:
The significance of persistent albumin findings in the urine in young adults who come for life insurance examinations and who are in all other ways physically fit and the microscopic urine examinations are entirely negative.

Dr. M. H. Wall:
The present status of injection for hernia.

Dr. A. C. Taylor:
The present status of Prontosil especially in streptococcus and gonococcus infections.

Dr. J. W. McGill:
I have a ninety-seven-pound primipara two weeks from term,—everything normal except blood pressure and urine. She came in first when six weeks pregnant, and the blood pressure was 138/90. This continued to increase until today it is 170/110, and the urine for the first time shows albumin and a few pus cells. Temperature is 99.6. There is no headache nor discomfort. I am hospitalizing her. What should I do next?

News Items and Personals

The next annual Inactive Duty Training Period for medical reserve officers of the Army and the Navy will be held in Rochester, Minnesota, at the Mayo Clinic under the military supervision of the Surgeon of the Seventh Corps Area (Army) and the Surgeon of the Ninth Naval District (Navy) from October 3 to 16, inclusive.

The morning hours are devoted entirely to professional training given by the various departments or sections of the clinic at its several hospitals and institutions. The afternoon hours are devoted to lectures on professional subjects or military medicine. The evening hours are given to lectures by distinguished visitors and the presentation of medico-military subjects.

The meeting is given for reserve officers of the Army and the Navy, and due military credits are given for attendance.

—△—

Appearing before the Rotary Club of Oshkosh, Dr. Eben J. Carey of Milwaukee, dean of Marquette University School of Medicine, emphasized the important part vivisection of animals has played in the development of modern medicine. The meeting was held on Monday, August 16.

On July 27 Dr. George F. Adams and Dr. Cyril G. Richards presented material in symposium form on the subject of syphilis at the meeting of the Kenosha Rotary Club. They traced the history of syphilis, its effect on mankind, and the steps now under way to bring to the public intelligent understanding of this problem. Doctor Richards is in charge of the Kenosha branch of the venereal clinic under the State Board of Health.

—△—

Dr. Charles R. Marquardt announces the removal of his offices from 152 W. Wisconsin Avenue to 324 E. Wisconsin Avenue, Milwaukee.

—△—

Dr. Ronald Rikkers, Milwaukee, was recently appointed assistant medical director of the Northwestern Mutual Insurance Company. He formerly maintained an office at 3702 North Teutonia Avenue.

—△—

Dr. John E. Schein of Oshkosh was reelected as examiner of school athletes and candidates for athletic positions. The previous item to the effect that he was elected school physician was incorrect in that Oshkosh employs no school physician.

Dr. Arnold Jackson of Madison, who is spending a vacation at Jacksonport, showed colored moving pictures and slides at the meeting of the Jacksonport Community Club which was held on Friday, August 13. The illustrated lecture described the doctor's travels in the South.

—△—

Dr. C. L. White, city health officer of Mineral Point, was guest speaker at the weekly luncheon meeting of the Kiwanis Club at Mineral Point on August 2. The subject of Doctor White's address was "Social Hygiene."

—△—

Dr. R. M. Wheeler of Madison has moved his offices from the Tenney Building to the First National Bank Building, 905 University Avenue.

—△—

Dr. R. A. Mullen of East Troy has moved to Burlington where he has opened an office.

—△—

Dr. A. R. Bellerue of Grand Rapids, Michigan, has entered partnership with Dr. J. V. Herzog and Dr. L. F. Baisinger of Elkhorn.

—△—

Dr. W. J. Wehle recently returned from a vacation in California where he visited his sons and daughters-in-law, Dr. and Mrs. Alex and Dr. and Mrs. Edward Wehle of Los Angeles. He also called on Dr. Walter Kelly at Alhambra and Dr. Phillip Herriges at Long Beach, both of whom formerly practiced in Kewaskum, and visited the Institute of Technology at Pasadena.

—△—

The city council of Kenosha at a recent meeting approved the appointment of Dr. C. G. Richards as a member of the Police and Fire Commission to fill an unexpired term left vacant by a resignation.

—△—

An organization meeting, which nearly thirty physicians from Watertown and locality attended, was held at St. Mary's Hospital at Watertown on July 22. Officers of the doctors' staff elected are: Dr. O. F. Dierker, president; Dr. W. C. Becker, vice president; and Dr. A. C. Hahn, secretary and treasurer. The hospital staff will meet about once a month.

BIRTHS

A son to Dr. and Mrs. R. E. Galasinski of Milwaukee on June 30.

A daughter to Dr. and Mrs. W. A. Brussock of Milwaukee on July 6.

A son to Dr. and Mrs. W. C. Hermann of Milwaukee on July 23.

A son to Dr. and Mrs. A. C. Gorder of Milwaukee on July 25.

A son to Dr. and Mrs. M. B. Byrnes of Milwaukee on July 29.

MARRIAGES

Dr. Urban J. Durner of Milwaukee and Miss Alma Radtke of Milwaukee on July 29.

Dr. Charles H. Behnke of Oshkosh to Miss Dorothy Panay of Milwaukee on August 9.

Dr. Lawrence J. Keenan of Fond du Lac to Miss Helen Pfister of Sheboygan on August 7.

DEATHS

Dr. James R. Barnett died suddenly at his home in Neenah on Sunday, July 11, following a heart attack. He was born in 1875 and was graduated from Rush Medical College, Chicago, in 1897. He is survived by his widow and three sons.

Dr. William E. Williams, who died following a year's illness, was born in Cambria in 1859. He took his premedical course in St. Louis and finished at Rush Medical School in Chicago in 1889. He was a member of the Columbia-Marquette-Adams County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association, and had been active in Masonry for many years.

Dr. H. Franklin Eames, Egg Harbor, died at his home on Friday, August 6, following an illness of two days. Death was attributed to heart trouble. He was born in Maeham, Province of Quebec, Canada, in 1859, and came to the United States at the age of seventeen years, settling in Door County. He was graduated from the University of Illinois College of Medicine, Chicago, in 1889. He started his practice at Wacedah, Michigan, but returned to Door County in 1892, where he was active in civic affairs. Surviving him are his widow, six children, and seven grandchildren.

Dr. Garret W. Davelaar, Milwaukee, died at his home on August 18 following a long illness. He was born in 1875 and was graduated from the Milwaukee Medical College in 1897. Eight years ago he retired as medical examiner for the Prudential Life Insurance Company. He was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association. Surviving are his widow, a daughter, a brother, and a sister.

Dr. Herman A. Wolter, who had practiced in Green Bay for more than forty years, died at St. Vincent's Hospital, Green Bay, on July 25. He was born in Greenville in 1853, and was educated at Rush Medical College, University of Chicago, graduating in 1881. He practiced in Fountain City, Minnesota, Oconto, and De Pere before locating in Green Bay. For the last thirty-five years he has spent part of each winter in Florida.

He was a member of the Brown-Kewaunee-Door County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association. Surviving are two brothers, Fred and Henry, both of Appleton, and a sister, Mrs. Helen Hanchett of Ashville, North Carolina.

Over 1,200 Physicians Anticipated for Ninety-Sixth Anniversary Meeting at Auditorium, Milwaukee, September 15, 16 and 17

UPWARD of 1,200 Wisconsin physicians and over 300 members of the Auxiliary are expected to register for attendance at the ninety-sixth anniversary meeting of the State Medical Society of Wisconsin at Milwaukee on September 14 to 17.

Announcement of the final program by the Council on Scientific Work, Dr. James Evans of La Crosse in charge, is made in this issue of the Journal. Featuring thirty-six round-table luncheons, sectional meetings, and unusual general sessions, the program provides extensive range of subject matter so as to cover the interests of physicians in all fields of medical science.

Distinguished speakers from without Wisconsin include the following:

1. Dr. R. A. Kinsella, professor of internal medicine, St. Louis University School of Medicine, St. Louis, Missouri.
2. Dr. E. L. Eliason, professor of clinical surgery, University of Pennsylvania, Philadelphia.
3. Dr. Chevalier Jackson, clinical professor of bronchoscopy and esophagoscopy, Temple University School of Medicine, Philadelphia, Pennsylvania.
4. Dr. J. Arthur Myers, professor of medicine, University of Minnesota Medical School, Minneapolis, Minnesota.
5. Dr. F. C. Rodda, associate professor of pediatrics, University of Minnesota Medical School, Minneapolis, Minnesota.
6. Dr. E. A. Rovenstine, professor of anesthesia, New York University Medical School, New York, New York.
7. Dr. Cyrus Sturgis, professor of medicine, University of Michigan Medical School, Ann Arbor, Michigan.
8. Dr. F. A. Willius, associate professor of medicine, University of Minnesota, Graduate School of Medicine, Minneapolis-Rochester, Minnesota.
9. Dr. C. A. Aldrich, Winnetka, Illinois, assistant professor of pediatrics, Northwestern University Medical School, Chicago, Illinois.
10. Dr. Edward L. Cornell, assistant professor of obstetrics, Northwestern University Medical School, Chicago, Illinois.
11. Dr. Vincent J. O'Conor, associate professor of genito-urinary surgery, University of Illinois College of Medicine, Chicago, Illinois.
12. Dr. Owen Wangensteen, professor of surgery, University of Minnesota, Minneapolis, Minnesota.
13. Dr. Paul H. Garvey, assistant professor of neurology, University of Rochester School of Medicine, Rochester, New York.
14. Dr. C. S. O'Brien, professor of ophthalmology, State University of Iowa, College of Medicine, Iowa City, Iowa.
15. Dr. G. A. Kempf, senior surgeon United States Public Health Service, Boston, Massachusetts.
16. Dr. W. C. Menninger, Menninger Clinic, Topeka, Kansas.
17. Dr. Logan Clendening, Kansas City, Missouri, clinical professor of medicine, University of Kansas School of Medicine, Lawrence-Kansas City, Kansas.
18. Dr. Robert M. Grier, Evanston, Illinois, associate professor of obstetrics and gynecology, Northwestern University Medical School, Chicago, Illinois.
19. Dr. Edward T. Evans, assistant professor of orthopedic surgery, University of Minnesota Medical School, Minneapolis, Minnesota.
20. Dr. J. H. J. Upham, president, American Medical Association, Columbus, Ohio.
21. Dr. James F. Weir, assistant professor of medicine, University of Minnesota, Graduate School, Minneapolis-Rochester, Minnesota.
22. Dr. Edward H. Rynearson, The Mayo Clinic, Rochester, Minnesota.
23. Dr. Irvin Abell, president-elect, American Medical Association, Louisville, Kentucky.

President-Elect of American Medical Association at Smoker Wednesday Evening, September 15

DR. IRVIN ABELL of Louisville, Kentucky, president-elect of the American Medical Association, will be the sole speaker on the program at 8:30 Wednesday evening preceding the annual smoker. This program will be held in the ballroom of the Schroeder Hotel.

Plans for the smoker are under the direction of the Medical Society of Milwaukee County and will constitute "Milwaukee Night." Several hundreds of physicians are expected to attend the address of Doctor Abell on "Responsibility of the Profession" and the smoker immediately thereafter.

Early Session of House of Delegates

CONFORMING with the wishes of the delegates for additional time for discussion, the first meeting of the House of Delegates will be held in the ballroom of the Schroeder Hotel at four o'clock sharp on Tuesday afternoon, September 14. At six o'clock the delegates and alternates will be guests of the Council for dinner and the House will reconvene for continued session directly thereafter.

At the Tuesday session the House will hear additions to the reports of officers and committees as published in the August issue of the Journal, together with recommendations of the president and president-elect. Later the House will choose one member from each of the thirteen councilor districts to constitute the Committee on Nominations. Following discussion of each suggested amendment to the Constitution and By-Laws, the House will select councilors for the following districts:

1. Third District: Dr. Joseph Dean, term expires.
2. Fourth District: Dr. Wilson Cunningham, term expires.
3. Fifth District: Dr. A. H. Heidner, term expires.
4. Sixth District: Dr. S. E. Gavin, term expires.

Reference committees of the House on reports of officers and committees and on resolutions will be selected by Speaker A. E. Rector of Appleton on Tuesday evening and will report back to the Wednesday evening session of the House, to be called at 6:45 p. m. The final session of the House will be held at eight o'clock Thursday morning. At the last session the members will hear the report of the Committee on Nominations and thereafter proceed to the election of the following officers: A president-elect, a speaker of the House of Delegates to succeed Dr. A. E. Rector whose term expires, a vice speaker of the House of Delegates to succeed Dr. Henry Gramling whose term expires, a delegate to the American Medical Association to succeed Dr. Joseph F. Smith whose term expires, and an alternate delegate to the American Medical Association to succeed Dr. C. W. Giesen whose term expires.

Nominations by the Committee on Nominations do not preclude additional nominations upon the floor at the Thursday morning session.

WEAR YOUR BADGE

To obviate complaints made at previous sessions that non-members were attending the sessions, guards will be posted at all session room doors.

Admittance will be by badge only. Please help us to eliminate complaints by wearing your badge, to be obtained at the Registration Booth.

If your badge is lost, a duplicate may be obtained at the Registration Booth.

Distinguished Speaker at Annual Dinner Thursday, September 16

DR. LOGAN CLENDENING of Kansas City, professor of clinical medicine, University of Kansas, author and publicist, will present the address of the evening on the occasion of the annual dinner of the Society in the Crystal Ballroom in the Schroeder Hotel on Thursday evening, September 16.

"The Great Centers of Medical Thought in the Past" will be the subject of Doctor Clendening's address. Dinner is for members and their wives and will be informal.

Doctor Clendening's address will be preceded by presentation of the Council award and introduction of Dr. J. H. J. Upham of Columbus, Ohio, president of the American Medical Association. Following the address of the evening the ballroom will be open for dancing.

Doctor Clendening was chief of the medical service at Fort Sam Houston during the World War, and has been a member of the board of governors of the American College of Physicians. In the field of medicine he is the author of "Modern Methods of Treatment," 1924; "The Human Body," 1927; and "Care and Feeding of Adults," 1931. He is one of the outstanding publicists of medicine before the public and has but recently returned from extensive travels abroad.

Dr. Logan Clendening

Golf Tournament

ON TUESDAY, September 14, over 100 members of the Society are expected to participate in the annual golf tournament to be held at Blue Mound Country Club, Milwaukee. The chairman of the tournament is Dr. Conde F. Conroy, and extensive preparations have been made for the enjoyment of the members.

The morning will be devoted to practice play with a luncheon at twelve, noon, with competition play starting at one o'clock Tuesday afternoon. The tournament will be followed by dinner at the clubhouse. The president's and secretary's cups, together with other prizes, will be awarded on this occasion.

All reservations are to be made through the office of the Medical Society of Milwaukee County, Bankers' Building, Milwaukee, accompanied by the fee of $4 which covers the green fee and dinner.

"RIGHT ON TIME"

Members are advised that every session throughout the Annual Meeting will start exactly on the hour stated in the program. So far as possible the meeting will be run exactly on schedule. Members may assume that it will not vary at any time over five minutes from the published schedule.

Scientific Program for 96th Anniversary Meeting Wednesday, Thursday, Friday, Sept. 15-17

THE Council on Scientific Work has prepared and presents the preliminary program for the ninety-sixth anniversary meeting of the Society to be held in Milwaukee on September 14, 15, 16, and 17. A study of the program will reveal at once that the program has been arranged to make available to the membership a concentrated three-day postgraduate course in the application of present-day scientific knowledge to bedside medicine. Those in charge of the preparation of the program have chosen to stress, in the general session, the subject of preventive medicine in general practice. The sectional meetings have been arranged to afford members an opportunity to secure information on the more highly specialized subjects in which they have a particular interest.

The demand for entry to the round-table luncheons has necessitated the enlargement of this feature of the program. Round-table luncheons will be held on both Thursday and Friday noons, with a total of thirty-four luncheons scheduled. A special bulletin will be mailed to the members explaining the luncheons and an opportunity will be given at that time to make individual reservations for the luncheons.

The program will be conducted on an exact-timed schedule. You are assured that the topic will be presented at the hour designated in the program which follows.

TUESDAY, SEPTEMBER 14

Noon

12:00 Meeting of Council—Schroeder Hotel.

P. M.

4:00 House of Delegates—Schroeder Hotel.

Ballroom, Fifth Floor.

WEDNESDAY, SEPTEMBER 15

A. M.

8:00 Registration at Milwaukee Auditorium—Exhibits open.

9:00 General Session—Plankinton Hall.

9:00 Tetanus Toxoid; The Active Immunization Against Tetanus.
M. Fernan-Nunez, Milwaukee.

9:30 Bedside Diagnosis and Treatment of Cardiac Irregularities.
(With motion picture of heart valves in action.)
V. W. Koch, Janesville.

9:55 Self-Produced Lesions of the Skin; Their Medical and Economic Importance.
O. H. Foerster, Milwaukee.

10:15 The Value of Active Immunization and the Place of a Specific Antitoxin in the Treatment of Scarlet Fever.
O. M. Layton, Fond du Lac.

10:35 Discussant—E. H. Pawsat, Fond du Lac.

10:40 Recess to view exhibits.

11:00 General Session—Plankinton Hall.

11:00 Principles Governing Treatment of Severe Streptococcal Infections.
R. A. Kinsella, professor of internal medicine, St. Louis University School of Medicine, St. Louis, Missouri.

11:30 Discussant—J. C. Fox, assistant district surgeon, C. C. Corps, La Crosse.

11:40 Treatment of Pruritus Ani.
R. L. McIntosh and N. A. Hill, Madison.

P. M.

1:30 Demonstrations in exhibits.

2:00 General Session—Plankinton Hall.

2:00 Surgical Aspects of Indigestion.
E. L. Eliason, professor of clinical surgery, University of Pennsylvania, Philadelphia.

2:20 Indications for Bronchoscopy.
Chevalier Jackson, Sr., clinical professor of bronchoscopy and esophagoscopy, Temple University School of Medicine, Philadelphia, Pennsylvania.

2:50 Discussants—L. A. Copps, Marshfield.
J. S. Gordon, Milwaukee.

3:00 Recess to view exhibits.

3:20 General Session—Plankinton Hall.

Symposium

The Family Physician—A Unit in Preventive Medicine

3:20 The Family Physician's Role in Preventive Medicine.
F. G. Johnson, Iron River.

3:40 Tuberculosis Prevention.
J. Arthur Myers, professor of medicine, University of Minnesota Medical School, Minneapolis, Minnesota.

4:00 Discussant—A. A. Pleyte, Milwaukee.

4:05 Modern Medical Trends in Pediatrics.
F. C. Rodda, associate professor of pediatrics, University of Minnesota Medical School, Minneapolis, Minnesota.

4:25 Discussants—G. W. Krahn, Oconto Falls.
L. O. Helmes, Oshkosh.

4:35 Practical Demonstrations in Technical Procedures Involving Preventive Medicine.
Demonstrations and procedures will be conducted in the scientific exhibit in Juneau Hall. Scientific exhibit booths will be in charge of The Medical Society of Milwaukee County.

6:45 House of Delegates—Schroeder Hotel.
Ballroom, Fifth Floor.

8:30

9:15 Milwaukee Night Smoker.
Ballroom, Fifth Floor.

THURSDAY, SEPTEMBER 16

A. M.

8:00 House of Delegates—Schroeder Hotel.
Ballroom, Fifth Floor.

8:20 General Session—Plankinton Hall.

8:20 Anesthesia—E. A. Rovenstine, professor of anesthesia, New York University Medical School, New York, New York.

8:40 Modern Methods of Treating Lobar Pneumonia.
Cyrus Sturgis, professor of medicine, University of Michigan Medical School, Ann Arbor, Michigan.

9:10 Treatment of Diseases of the Heart.
F. A. Willius, associate professor of medicine, University of Minnesota, Graduate School of Medicine, Minneapolis-Rochester, Minnesota.

9:40 Recess to view exhibits.

10:00 General Session—Plankinton Hall.

10:00 Growth and Development of Babies.
C. A. Aldrich, Winnetka, Illinois, assistant professor of pediatrics, Northwestern University Medical School, Chicago.

10:20 Discussant—A. B. Schwartz, Milwaukee.

10:25 Abnormal Vaginal Discharges.
Edward L. Cornell, assistant professor of obstetrics, Northwestern University Medical School, Chicago, Illinois.

10:45 Discussant—R. M. Kurten, Racine.

10:50 Address of the President-Elect.
James C. Sargent, Milwaukee.

11:10 Report of House of Delegates.

11:20 Stone Impacted in Lower Ureter from the View of the General Practitioner and the Urologist.
Vincent J. O'Conor, associate professor of genito-urinary surgery, University of Illinois College of Medicine, Chicago, Illinois.

11:40 The Mechanism of Swallowing—(Motion pictures.)
A. E. Barclay, radiologist for Nuffield Institute for Medical Research, Oxford, England.

SECTION ON OTOLARYNGOLOGY

Committee Room A

E. G. Nadeau, Green Bay, chairman.

9:00 Cancer of the Larynx.
Chevalier Jackson, Sr., clinical professor of bronchoscopy and esophagoscopy, Temple University School of Medicine, Philadelphia, Pennsylvania.
9:50 Discussant—J. E. Mulsow, Milwaukee.
10:00 Preservation of Hearing.
H. B. Hitz, Milwaukee.
10:35 Discussant—L. C. Gardner, Fond du Lac.
10:45 The Treatment of Acute Mastoiditis.
J. K. Trumbo, Wausau.
11:20 Discussant—A. H. Pember, Janesville.
11:30 Lateral Sinus Thrombosis.
W. M. Nesbit, Madison.
11:50 Discussant—O. M. Wilson, Wausau.

12:00 Noon Round-Table Discussions—Schroeder Hotel

1. Obstetrical Analgesia.
R. E. McDonald, Milwaukee.
Pere Marquette Room, Fifth Floor.

2. Neurology—Effect of Projected Legislation on Institutional Care in Mental Hygiene.
A. W. Bryan, Madison.
English Room, Fifth Floor.

3. Otolaryngology—Treatment in Chronic Sinusitis.
H. G. Schmidt, Milwaukee.
Pine Room, Fifth Floor.

4. Ophthalmology—Management of Strabismus.
F. A. Davis, Madison.
Room B, Fifth Floor.

5. Immunization Procedures in Childhood.
M. G. Peterman, Milwaukee.
Room C, Fifth Floor.

6. Osteomyelitis and Septic Arthritis.
R. E. Burns, Madison.
Parlor A, Fourth Floor.

7. Urology—The Use in General Practice of the New Urinary Antiseptics, Mandelic Acid and Sulfanilamide.
W. M. Kearns, Milwaukee.
Parlor B, Fourth Floor.

8. Asylum Physicians and Superintendents.
G. E. Seaman, Winnebago.
Parlor C, Fourth Floor.

9. Pathology—The Diagnosis of the Early and Precancerous Lesions.
W. D. Stovall, Madison.
Parlor D, Fourth Floor.

10. Physical Therapy as Applied to Industrial Insurance.
M. L. Jones, Wausau.
Parlor E, Fourth Floor.

SPECIAL TELEPHONE SERVICE

As a special service to the members, the State Medical Society has installed two special lines direct to the Auditorium and will provide special operators and page service.

If you anticipate calls, leave the number of this special phone with your office assistant.

The number is: *Broadway 8030*

11. Radiology of Bone Lesions: Bring your bone films with a short case history.
J. Newton Sisk, Madison.
Parlor F, Fourth Floor.

12. Orthopedics—Treatment of Fractures About the Elbow in Children.
W. P. Blount, Milwaukee.
Parlor G, Fourth Floor.

13. Treatment of Empyema.
J. W. Gale, Madison.
Club Rooms, Third Floor.

14. Conservative Treatment of Pancreatic Necrosis.
Owen Wangensteen, professor of surgery, University of Minnesota, Minneapolis, Minnesota.
Room D, Fifth Floor.

15. Bedside Medicine and Newer Drugs.
W. S. Middleton, Madison.
Room E, Fifth Floor.

16. Surgery of Tuberculosis.
Forrester Raine, Milwaukee.
Room F, Fifth Floor.

17. Anesthesia—The Cause and Treatment of Respiratory and Circulatory Crises.
E. A. Rovenstine, professor of anesthesia, New York University Medical School, New York, and R. M. Waters, Madison.
Parlor I, Fourth Floor.

18. Round Table for Hunters.
C. F. Hardy, Milwaukee.
Parlor H, Fourth Floor.

19. Luncheon for Past Presidents of State Medical Society.
Room 607.

P. M.

1:45 Recess.

2:15 Sectional meetings.

SECTION ON MEDICINE

Plankinton Hall

F. D. Murphy, Milwaukee, chairman.

2:15 The Anemias.
Cyrus Sturgis, professor of medicine, University of Michigan Medical School, Ann Arbor, Michigan.

2:35 Discussant—J. J. Pink, Milwaukee.

2:40 The Use of Protamine Insulin in General Practice.
C. C. Edmondson, Waukesha.

3:00 Discussant—G. Hoyme, Eau Claire.

3:05 Some Phases of Bleeding.
F. W. Madison, Milwaukee.

3:25 Discussant—A. J. Quick, Milwaukee.

3:30 Acute Infectious Polyneuritis.
Paul H. Garvey, associate professor of neurology, University of Rochester School of Medicine, Rochester, New York.

3:50 Discussant—S. S. Stack, Milwaukee.

3:55 *The medical section will then dissolve itself into five round-table symposiums to be held in Market Hall.*

1. Diseases of the Gastro-Intestinal Tract.
   Joseph Shaiken, Milwaukee, symposium leader.
2. Recent Advances in Drug Therapy.
   Joseph Lettenberger, Milwaukee, symposium leader.
3. The Leukemias.
   O. O. Meyer, Madison, symposium leader.
4. Practical Aspects of Protamine Insulin.
   H. E. Marsh, Madison, symposium leader.
5. Diseases of the Thyroid Gland.
   L. M. Warfield, Milwaukee, symposium leader.

SECTION ON UROLOGY

Directors' Room.

H. E. Kasten, Beloit, chairman.
W. E. Bannen, La Crosse, program chairman.

2:15 A Comparison of the Value of Gluconic Acid and Ammonium Nitrate as Urinary Acidifying Agents.
Ira R. Sisk, Madison.

2:40 Revival in Syphilis.
M. W. Sherwood, Milwaukee.

3:05 Carcinoma of Penis.
G. H. Ewell, Madison.

3:30 Newer Ideas in the Treatment of Chronic Prostatitis and Seminal Vesiculitis.
W. K. Gray, Milwaukee.

3:55 Use of Mandelic Acid in Urinary Tract Infections.
Alexander Schlapik, Kenosha.

SECTION ON PEDIATRICS

Mechanics Hall—Special Room B.

J. E. Gonce, Jr., Madison, chairman.

2:15 Treatment of Congenital Syphilis.
H. R. Foerster, Milwaukee.

2:35 Discussant—H. J. Farrell, Milwaukee.

2:45 Leukemia in Childhood.
L. M. Simonson, Sheboygan.

3:05 Discussant—O. O. Meyer, Madison.

3:15 Dystrophies of Childhood.
M. G. Peterman, Milwaukee.

3:35 Discussant—W. P. Blount, Milwaukee.

3:45 Treatment of Nephrosis with Concentrated Blood Serum.
C. A. Aldrich, Winnetka, Illinois.

4:05 Discussant—H. K. Tenney, Madison.

4:15 Complemental Feeding of the Newborn and Care of the Skin.
F. C. Rodda, Minneapolis, Minnesota.

4:35 Discussant—H. A. Sincock, Superior.

SECTION ON SURGERY

Engelmann Hall.

O. R. Lillie, Milwaukee, chairman.

2:15 Benign Lesions of the Breast which Simulate Malignancy.
F. A. Stratton, Milwaukee.

2:35 Symposium on Preoperative and Postoperative Treatment

2:35 Preoperative Treatment.
Irwin Schulz, Milwaukee.

2:50 Fluid Requirements.
Forrester Raine, Milwaukee.

3:05 Postoperative Treatment.
M. A. McGarty, La Crosse.

3:20 The Role of the Surgeon in the Treatment of Acute Pyogenic Infections.
Owen H. Wangensteen, professor of surgery, University of Minnesota Medical School, Minneapolis, Minnesota.

SECTION ON OPHTHALMOLOGY

Committee Room A

Lyman A. Copps, Marshfield, chairman.

2:15 Conjunctivitis: Diagnosis, Etiology, and Treatment.
C. S. O'Brien, professor of ophthalmology, State University of Iowa, College of Medicine, Iowa City, Iowa.

2:45 Discussant—J. M. Molsberry, Milwaukee.

2:55 Differential Diagnosis of Lenticular Opacities.
F. H. Haessler, Milwaukee.

3:25 Discussant—C. K. Schubert, Madison.

3:35 Modification of the Mosher–Toti Operation.
F. S. Cook and P. G. Spelbring, Eau Claire.

4:05 Discussant—W. H. Neumann, Sheboygan.

4:15 Sight Saving Programs—Preventive Medicine for the Layman.
F. A. Kartak, dean, Marquette University School of Engineering, Milwaukee.

4:40 Discussant—E. E. Neff, Madison.

4:50 Business Meeting.

SECTION ON OBSTETRICS AND GYNECOLOGY

Mechanics Hall—Special Room A

Edwin F. Schneiders, Madison, chairman

2:15 Prophylaxis and Therapy of Puerperal Sepsis.
J. M. Freeman, Wausau.

2:45 Discussant—A. H. Lahmann, Milwaukee.

2:55 Low Cervical *versus* Classical Cesarean Section.
R. E. Campbell, Madison.

3:25 Discussant—H. J. Olson, Milwaukee.

3:35 The Prophylaxis and Treatment of Eclampsia.
J. B. Vedder, Marshfield.

4:05 Discussant—H. M. Helm, Beloit.

SECTION ON INSTITUTIONAL CARE

Committee Room D

A. W. Bryan, Madison, chairman

2:15 Report of Committee on Institutional Care and Mental Hygiene
A. W. Bryan, chairman

2:30 Recent Tour of Wisconsin County Institutions and Report of Work Under Auspices of National Society for Mental Hygiene
G. A. Kempf, senior surgeon U.S.P.H.S., Boston, Massachusetts

3:00 Suggestions in the Care of the Chronic Insane
W. C. Menninger, Menninger Clinic, Topeka, Kansas

3:30 Insulin Shock Treatment of Dementia Praecox. (Motion pictures.)
H. H. Reese, Madison, and August Sauthoff, Mendota.

3:50 Discussant—G. E. Seaman, Winnebago

4:00 Our Common Problems
Mrs. Katharine Sullivan, member of State Board of Control, Madison

4:20 Advantages of Hospital Facilities in the County Institutions
Mr. F. E. Overson, superintendent, Racine County Asylum, Racine

4:40–5:00 General Discussion

6:45 Annual Dinner—Schroeder Hotel.

Ballroom, Fifth Floor.

(Informal)

The Council Award.

Introduction of the President of The American Medical Association.

"The Great Centers of Medical Thought in the Past"

Dr. Logan Clendening, Kansas City, Missouri, clinical professor of medicine, University of Kansas School of Medicine, Lawrence–Kansas City, Kansas.

FRIDAY, SEPTEMBER 17

A. M.

8:30 General Session—Plankinton Hall.

8:30 Recent Advancements in Psychiatric Therapy.
Annette C. Washburne, Madison.

8:50 Rogers Memorial Lecture: Psychological Factors in Medical and Surgical Conditions.
Wm. C. Menninger, Topeka, Kansas.

9:20 Discussant—M. Q. Howard, Milwaukee Sanitarium, Wauwatosa.

9:30 Results of the Surgical Treatment and Criteria of Treatment of Tuberculosis.

E. R. Daniels and L. H. Kingsbury, Statesan.

10:00 Recess to view exhibits.

10:20 General Session—Plankinton Hall.

10:20 Pain Relief in Labor.

Robert M. Grier, Evanston, Illinois, associate professor of obstetrics and gynecology, Northwestern University Medical School, Chicago, Illinois.

10:40 The Obstetrical Forceps: Its Use and Abuse.

J. W. McGill, Superior.

11:00 Discussants—C. S. Harper and J. W. Harris, Madison.

11:10 The History and Application of New Advances in the Treatment of Fracture of the Neck of the Femur.

Edward T. Evans, assistant professor of orthopedic surgery, University of Minnesota Medical School, Minneapolis, Minnesota.

11:30 The Heart of Middle Life.

J. H. J. Upham, president, American Medical Association, Columbus, Ohio.

12:00 Noon Round-Table Discussions—Schroeder Hotel

1. Anesthesia—The Role of Carbon Dioxide in Clinical Medicine.

   R. M. Waters, Madison, and E. A. Rovenstine, professor of anesthesia, New York University Medical School, New York.

   Pere Marquette Room, Fifth Floor.

2. Infectious Diseases—Recent Developments in Immunization Procedures.

   A. B. Schwartz, Milwaukee.

   English Room, Fifth Floor.

3. Peripheral Vascular Diseases.

   Maurice Hardgrove, Milwaukee.

   Pine Room, Fifth Floor.

4. Diseases of the Liver.

   James F. Weir, assistant professor of medicine, University of Minnesota, Graduate School of Medicine, Minneapolis—Rochester, Minnesota.

   Room B, Fifth Floor.

5. Practical Treatment of Heart Diseases in the Home.

   C. M. Kurtz, Madison.

   Room C, Fifth Floor.

PROGRAM SYNOPSIS

Tuesday—September 14

12:00 noon—Council—Schroeder Hotel

P. M.

4:00—House of Delegates—Schroeder Hotel

Wednesday—September 15

A. M.

8:00—Registration—Milwaukee Auditorium

9:00—General Sessions—Milwaukee Auditorium

10:40—Recess to View Exhibits

11:00—General Sessions

P. M.

1:30—Demonstrations in Exhibits

2:00—General Sessions

3:00—Recess to View Exhibits

3:20—General Sessions

Symposium—The Family Physician and Preventive Medicine

6:45—House of Delegates—Schroeder Hotel

8:00—Smoker—Schroeder Hotel

Thursday—September 16

A. M.

8:00—House of Delegates—Schroeder Hotel

8:20—General Sessions—Milwaukee Auditorium

9:40—Recess to View Exhibits

10:00—General Sessions

12:00—Round-Table Luncheons—Schroeder Hotel

P. M.

1:45—Recess to View Exhibits

2:15—Sectional Meetings

Medicine
Urology
Obstetrics and Gynecology
Pediatrics
Surgery
Ophthalmology
Otolaryngology
Institutional Care

6:45—Annual Dinner—Schroeder Hotel—Informal Address — Dr. Logan Clendening, Kansas City, Mo.

Dancing

Friday—September 17

A. M.

8:30—General Sessions—Milwaukee Auditorium

10:00—Recess to View Exhibits

10:20—General Sessions

12:00—Round-Table Luncheons—Schroeder Hotel

P. M.

1:45—Recess to View Exhibits

2:15—General Sessions

4:00—Adjournment

PENNSYLVANIA ALUMNI

University of Pennsylvania Alumni will get together at the regular monthly alumni luncheon on Wednesday, September 15, at 12:15, at the City Club, at 756 North Milwaukee Street.

6. Tuberculosis—Present Significance of the Negative Sputum.
   W. H. Oatway, Jr., Madison.
   Parlor A, Fourth Floor.

7. Conservative *versus* Radical Treatment of Appendicitis.
   S. B. Gundersen, La Crosse.
   Parlor B, Fourth Floor.

8. Peritonitis.
   E. H. Mensing, Milwaukee.
   Parlor C, Fourth Floor.

9. Obstetrics—What is a Test of Labor?
   Robert M. Grier, associate professor of obstetrics and gynecology, Northwestern University Medical School, Evanston, Illinois.
   Parlor D, Fourth Floor.

10. Pediatrics—Deficiency Diseases.
    K. E. Kassowitz, Milwaukee.
    Parlor E, Fourth Floor.

11. Radiology of the Chest: Bring your chest films with a short case history.
    S. A. Morton, Milwaukee.
    Parlor F, Fourth Floor.

12. Bedside Medicine and Newer Drugs.
    W. S. Middleton, Madison.
    Parlor G, Fourth Floor.

13. Orthopedists and Crippled Children Committee.
    J. W. Powers, chairman, Crippled Children Committee, Milwaukee.
    Parlor H, Fourth Floor.

14. Back Pain.
    Edward T. Evans, assistant professor of orthopedics, University of Minnesota, Minneapolis, Minnesota.
    Club Rooms, Third Floor.

Dr. William D. Stovall, professor of hygiene of the University of Wisconsin and director of the State Laboratory of Hygiene, will speak at the Silver Jubilee Luncheon for the National Organization for Public Health Nursing on Thursday, September 16, at 12:30 p. m., at the Schroeder Hotel. His subject will be TWENTY-FIVE YEARS OF PREVENTIVE MEDICINE AND PUBLIC HEALTH NURSING.

This luncheon is sponsored by the Visiting Nurse Association of Milwaukee, a corporate member of the National Organization for Public Health Nursing.

Physicians and others interested in public health nursing are cordially invited to attend.

Reservations may be made at the registration booth during the meeting of the State Medical Society.

15. Carcinoma of the Rectum.
    S. J. Seeger, Milwaukee.
    Room E, Fifth Floor.

16. The Therapeutic Management of Skin Diseases.
    R. L. McIntosh, Madison.
    Parlor I, Fourth Floor.

17. Round Table for Fishermen.
    Herbert Townsend, La Crosse, and Captain C. F. Culler, United States Bureau of Fisheries, La Crosse.
    Room D, Fifth Floor.

P. M.

1:45 Recess.

2:15 General Session—Plankinton Hall.

2:15 Symposium—Therapeutics of Modern Endocrinology.

2:15 The Pancreas and Adrenals.
Edward H. Rynearson, Rochester, Minnesota.

3:00 Sex Hormones.
E. L. Sevringhaus, Madison.

3:45 Open Floor Discussion.

4:00 Adjournment.

MAKE RESERVATION NOW FOR ROUND-TABLE LUNCHEONS ON THURSDAY AND FRIDAY

The secretary is now accepting reservations for the round-table luncheons. To secure your preference make reservation now. Vacancies will be filled at the registration desk.

Members—1937 House of Delegates

Society	*Delegate*	*Alternate*
Ashland–Bayfield–Iron	C. J. Smiles, Ashland	J. M. Dodd, Sr., Ashland
Barron–Washburn–Sawyer–Burnett	A. S. White, Rice Lake	H. H. Schlomovitz, Barron
Brown–Kewaunee–Door	P. R. Minahan, Green Bay	W. W. Kelly, Green Bay
	O. A. Stiennon, Green Bay	W. E. Leaper, Green Bay
Calumet	J. W. Goggins, Chilton	N. J. Knauf, Chilton
Chippewa	W. H. Fortner, Bloomer	A. W. Overgaard, Stanley
Clark	H. H. Christofferson, Colby	M. C. Rosekrans, Neillsville
Columbia–Marquette–Adams	H. M. Caldwell, Columbus	W. H. Costello, Randolph
Crawford	C. A. Armstrong, Prairie du Chien	E. T. Ackerman. Gays Mills
Dane	H. E. Marsh, Madison	W. A. Werrell, Madison
	E. F. Schneiders, Madison	A. R. Tormey, Madison
	L. W. Peterson, Sun Prairie	Louis Fauerbach, Madison
	J. N. Sisk, Madison	M. J. J. Coluccy, Madison
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam
Douglas	H. J. Orchard, Superior	C. W. Giesen, Superior
Eau Claire–Dunn–Pepin	J. C. Baird, Eau Claire	Oscar Knutson, Osseo
Fond du Lac	D. J. Twohig, Fond du Lac	C. W. Leonard, Fond du Lac
Forest	G. W. Ison, Crandon	O. S. Tenley, Wabeno
Grant	C. H. Andrew, Platteville	E. C. Howell, Fennimore
Green	J. F. Mauermann, Monroe	W. G. Bear, Monroe
Green Lake–Waushara	A. J. Wiesender, Berlin	George Baldwin, Green Lake
Iowa	C. J. Metcalf, Dodgeville	W. P. Hamilton, Dodgeville
Jefferson	H. P. Bowen, Watertown	W. S. Waite, Watertown
Juneau	F. H. Ferguson, Elroy	J. S. Hess, Jr., Mauston
Kenosha	A. F. Ruffolo, Kenosha	G. F. Adams, Kenosha
La Crosse	N. P. Anderson, La Crosse	R. L. Eagan, La Crosse
Lafayette	S. A. J. Ennis, Shullsburg	E. D. McConnell, Darlington
Langlade	G. E. Moore, Antigo	W. P. Curran, Antigo
Lincoln	E. O Ravn, Merrill	R. G. Baker, Tomahawk
Manitowoc	R. W. Hammond, Manitowoc	A. P. Zlatnik, Two Rivers
Marathon	S. M. B. Smith, Wausau	E. E. Flemming, Wausau
Marinette–Florence	A. T. Nadeau, Marinette	J. W. Boren, Marinette
Milwaukee	Norbert Enzer, Milwaukee	W. F. Grotjan, Milwaukee
	L. W. Hipke, Milwaukee	E. J. Carey, Milwaukee
	R. P. Sproule, Milwaukee	C. W. Eberbach, Milwaukee
	C. M. Echols, Milwaukee	S. M. Markson, Milwaukee
	J. W. Smith, Milwaukee	Irwin Schulz, Milwaukee
	William Ryan, Milwaukee	D. D. Mehigan, Milwaukee
	F. W. Mackoy, Milwaukee	Bernard Churchill, Milwaukee
	F. D. Murphy, Milwaukee	Millard Tufts, Milwaukee
	H. W. Powers, Milwaukee	T. J. Howard, Milwaukee
	H. C. Schumm, Milwaukee	Edward Jackson, Milwaukee
	E. L. Tharinger, Milwaukee	H. J. Olson, Milwaukee
	G. W. Neilson, Milwaukee	A. R. Langjahr, Milwaukee
	F. E. Drew, Milwaukee	A. H. Lahmann, Milwaukee
Monroe	A. R. Bell, Tomah	G. C. Devine, Ontario
Oconto	R. J. Goggins, Oconto Falls	W. C. Watkins, Oconto
Oneida–Vilas	W. S. Bump, Rhinelander	O. R. McMurry, Eagle River
Outagamie	A. E. Rector, Appleton	R. T. McCarty, Appleton
Pierce–St. Croix	A. E. McMahon, Glenwood City	O. H. Epley, New Richmond
Polk	R. G. Arveson, Frederic	A. N. Nelson, Clear Lake
Portage	E. E. Kidder, Stevens Point	H. P. Benn, Stevens Point
Price–Taylor	J. D. Leahy, Park Falls	L. E. Nystrum, Medford
Racine	H. B. Keland, Racine	T. C. Hemmingsen, Racine
Richland	George Parke, Viola	B. I. Pippin, Richland Center
Rock	W. J. Allen, Beloit	W. A. Munn, Janesville
Rusk	L. M. Lundmark, Ladysmith	Woodruff Smith, Ladysmith
Sauk	E. V. Stadel, Reedsburg	H. A. Bachhuber, Sauk City
Shawano	A. A. Cantwell, Shawano	F. L. Litzen, Gresham
Sheboygan	W. H. Neumann, Sheboygan	G. J. Hildebrand, Sheboygan
Trempealeau–Jackson–Buffalo	J. P. Reinhardt, Fountain City	R. L. MacCornack, Whitehall
Vernon	W. M. Trowbridge, Viroqua	W. H. Remer, Chaseburg
Walworth	Walter Mauthe, Whitewater	D. H. Jeffers, Lake Geneva
Washington–Ozaukee	J. G. Hoffmann, Hartford	O. J. Hurth, Cedarburg
Waukesha	H. A. Peters, Oconomowoc	Herbert Barnes, Delafield
Waupaca	A. M. Christofferson, Waupaca	R. K. Irvine, Manawa
Winnebago	R. B. Rogers, Neenah	J. M. Conley, Oshkosh
Wood	K. H. Doege, Marshfield	F. X. Pomainville, Wisconsin Rapids

Scientific Exhibits to Emphasize Practical Application of Newer Developments

THE scientific exhibits, since their inception, have proved a popular and valuable adjunct to the scientific sessions of the Society. This year the Council on Scientific Work has increased the number and scope of scientific exhibits so that members of the Society may witness the actual technique in the application of recent advances in scientific knowledge. Juneau Hall will be devoted exclusively to scientific exhibits. Recesses have been arranged in the scientific program for members to view each of the exhibits and discuss with demonstrators their exhibits.

A brief description of each exhibit is presented here so that members may be acquainted in advance with the general character of this feature of the meeting.

Booths 1–3

PREVENTIVE MEDICINE: WHOOPING COUGH, DIPHTHERIA, TETANUS, TYPHOID, SMALLPOX, SCARLET FEVER:

F. E. Drew, A. F. Rheineck, M. Tufts, W. F. Grotjan, H. J. Kuhn, A. B. Schwartz, J. M. Jekel, F. R. Janney, J. H. Reynolds, V. L. Baker, B. Lieberman, N. F. Dettmann, R. P. Schowalter, F. C. Heidner and Eleänore Cushing, Health Council and Child Welfare Committee of the Medical Society of Milwaukee County, Milwaukee

This exhibit consists of the following: display background to cover the historical, the process of manufacture, and the statistical data in the use of vaccine, toxin, or toxoid for the following diseases: whooping cough, diphtheria, scarlet fever, smallpox, typhoid and tetanus. This exhibit will also have demonstrators to describe the use, the technique, and the actual administration of the above-mentioned materials. There will also be positive reactions displayed in children on exhibit for examination. The demonstrators will distribute a series of twelve cards, describing the use of this material and associated preventive measures prepared by the Child Welfare Committee of the Medical Society of Milwaukee County.

Booth 4

SCARLET FEVER CONVALESCENT SERUM:

Maurice Hardgrove, Milwaukee Convalescent Serum Center, Columbia Hospital, Milwaukee

The exhibit will consist mainly of enlarged photographs of methods of procedures followed in the collection, preparation, and distribution of human convalescent serum. There will also be large charts tabulating the results of the use of human convalescent serum in the prevention and treatment of various infectious diseases, i.e., scarlet fever, measles, etc. There will be a demonstrator in the booth at all times to answer questions.

Booth 5

EARLY TUBERCULOSIS:

Reuben H. Stiehm, Student Health Service, University of Wisconsin, Madison

A medical program for the eventual eradication of tuberculosis is dependent upon periodic x-ray study of all infected persons as determined by the Mantoux intradermal tuberculin test. To rule out infection two tuberculin tests are necessary. That this is advisable is indicated by the results of testing over 11,000 University of Wisconsin students. Had only one test been done, the number of infected would have been 16.23 per cent. An additional 12.24 per cent reacted to the stronger second strength dose making the total per cent showing infection 28.47. Of importance is the fact that one fourth of the active cases found failed to react to the first test. Had not a second test been done, these cases of active tuberculosis would not have been discovered. Because symptoms occur relatively late in the disease, tuberculosis is moderately advanced (30 per cent) and more frequently far advanced (55 per cent) when the patient consults the physician because of symptoms. To find tuberculosis early the physician must seek out the disease among the infected who are apparently healthy. By x-ray examination of the infected at regular intervals upwards of 80 per cent of developing tuberculosis would be found in the minimal stage. Having found the lesion in its early stage, the clinical picture is of little value in determining the status of the lesion. Laboratory studies are necessary. The absence of fever and symptoms denotes a favorable course only when verified by: (1) The repeated absence of tubercle bacilli in the fasting morning gastric contents as shown by guinea pig inoculation. (2) A favorable total and differential blood picture. (3) A normal blood sedimentation rate. The past record of frequent "breakdowns" in the apparently cured indicates the fallacy of reliance on the clinical picture in determining when a lesion is healed. Greater use of laboratory studies to verify clinical improvement will result in fewer recurrences.

Booths 6, 7 and North 2′ of 8

FUNDAMENTALS IN PRENATAL DENTISTRY AND ORALOGY:

Henry F. Hahn, Marquette University Dental School, Milwaukee

Exhibit of drawings, charts, graphs, notes and 356 stereopticon slides. Its chief divisions are education, prevention and correction. It is emphasized that even though an oral health program contains these three divisions, if they are practiced in the inverse order there is no logical sequence. A further subdivision contains the professional part and the layman part. The more technical portion of this exhibit points out how biology teaches us the unity of living things and is not a branch of medicine or dentistry, but that they are branches of biology. There will be shown, starting with the fertilized ovum and continuing through to adult age, the derivation of the various parts of the body by progressive differentiation and divergent specialization. An evaluation of the effect of congenital disease, malnutrition and infection in the mother prenatally and in the child postnatally, on oral health must be based on definite knowledge. Therefore, in an abbreviated way on our slides, is shown the manner in which and the time that the various tooth structural cells form. It is stressed as equally important the fact that teeth like all other organs of the body represent the food materials and biologic forces that nature utilized in their formation. It is indicated that the more dentistry digs into the depths of science, the more it realizes and learns to appreciate the perfection of the normal, although realizing perfection is infinite and beyond human effort and realization. The third division, correction, occupies an equally important part in the presentation with the other two divisions. There will always be a place to correct or restore at least to a degree the normal after it has once been altered.

South 8′ of Booth 8

DENTAL PATHOLOGY:

George W. Wilson, Marquette University Dental School, Milwaukee

Exhibit of dental pathological specimens obtained from cases treated at the Marquette Dental Infirmary. The material consists of numerous specimens (25 to 30) of anomalous teeth, peri-radicular lesions removed in the surgical clinic, and photographic and roentgenographic pictures of interesting cases encountered during the past clinical year.

Booths 9–12

FRACTURES, A POTENTIAL SOURCE OF DEFORMITY AND DISABILITY:

M. S. Henderson, H. W. Meyerding, R. K. Ghormley and H. B. Macey, Mayo Clinic, Rochester, Minnesota

Exhibit showing: I. Methods of internal fixation for fractures of the neck of the femur with: (a) Smith-Petersen cannulated nail, (b) cannulated metal lag screw inserted over guide wire. II. Mechanical principles of reduction and fixation; roentgenograms taken before, during, and at the completion of the operation show the technic and end results. III. Technic and fibular bone graft for ununited fractures of the neck of the femur is shown by skeletal models, roentgenograms and models of the operative procedures. IV. Skeletal models and postoperative roentgenograms show three types of reconstruction operation for the ununited fracture of the neck of the femur: (a) Brackett operation, (b) Whitman operation, (c) Colonna operation. V. Massive bone graft for ununited fracture of the shaft of the femur and ununited fractures of the shaft of the humerus. VI. Reversible bone grafts for fracture of the shaft of the tibia are shown by similar means. VII. Malunited fractures near the joints. VIII. Pathologic fractures of various types illustrated by roentgenograms. IX. Volkmann's ischemic contracture of forearm and hand. This is a common complication of supracondylar fracture of the humerus. Diagrammatic model shows displacement of fragments with deep hemorrhage, causing intrinsic pressure and blocking circulation. The early conservative treatment and late surgical treatment.

Booth 13

HISTOPATHOLOGY OF NOSE AND THROAT:

William E. Grove, Marquette University School of Medicine, Milwaukee

Exhibit consists of photomicrographs illustrating the normal histology of the nose and throat and their more common pathological lesions. The normal histology illustrated is that of nasal mucosa of the embryo and the adult showing the variation which occurs in this mucosa in various parts of the nose such as the inferior turbinate, the middle turbinate and the sensory olfactory area. The normal histology of the tongue, the tonsil, the adenoid, the esophagus and the trachea is also illustrated. The pathology exhibited consists of the inflammatory processes of the nasal mucosa, both acute and chronic, the allergic mucosa and polypoid degeneration of the mucosa; tuberculosis of the epiglottis; papilloma of the larynx; mixed tumor of the parotid; and various types of malignant lesions of the nose, pharynx, larynx and trachea.

Booth 14

MILWAUKEE CHILDREN'S HOSPITAL ORTHOPTIC CLINIC:

John B. Hitz, Milwaukee Children's Hospital, Milwaukee

This exhibit will attempt to show the methods of examining cases of strabismus and the methods used in the orthoptic treatment of strabismus. There will be a small exhibit of the recent important literature on the subject. The equipment used in measuring the amount of strabismus and the fusion

faculty will be shown and demonstrated, also the instruments used in the actual treatment of strabismus at the clinic will be demonstrated, and an attempt will be made by the technician to demonstrate the difference between "true projection and false projection." There will also be a small exhibit of instruments used in home treatment. Individual case records showing the progress of treatment will be demonstrated to those interested. Mimeograph sheets outlining routine of treatment at the clinic and results that may be expected from orthoptic training will be distributed.

Booths 15, 16

PERORAL ENDOSCOPY IN A GENERAL HOSPITAL:

Lyman A. Copps and George L. McCormick, Marshfield Clinic, Marshfield

The object of this display is to demonstrate to the practitioner the place that endoscopy has in medical and surgical practice and the importance of recognizing when it is required. The display will consist of illustrations showing the armamentarium used, the ways in which some instruments are used and various stages in the operations of bronchoscopy and esophagoscopy. There will be x-rays and reports of cases of bronchiectasis, lung abscess, spontaneous and postoperative atelectasis, pulmonary malignancy, etc. Foreign body cases will be shown by means of charts illustrating the location of the foreign body and pathology in each case.

Booths 17, 18

DISEASES OF THE GASTRO-INTESTINAL TRACT AND REGIONAL ENTERITIS:

Arnold S. Jackson, Reginald H. Jackson and J. Newton Sisk, Jackson Clinic, Madison

Malignancy of the gastro-intestinal tract. Exhibit of charts, drawings, paintings and transparencies depicting cancer of the mouth, tongue, esophagus, stomach, small and large intestine, gallbladder and liver; also an exhibit on intestinal regional enteritis; statistical records detailing symptoms, operative observations and postoperative results are presented; lantern slides and motion pictures presenting malignant lesions, gross and microscopic studies and operative technic. Demonstration of the combination of surgery, radium and electrosurgery in the treatment of cancer.

Booth 29

BONE SURGERY:

James A. Jackson and Jerome T. Jerome and J. Newton Sisk, Jackson Clinic, Madison

Exhibit of: (a) Transparencies demonstrating various types of injuries, including special instruments and appliances used in their management; (b) transparencies showing bone tumors in various classifications; (c) charts and diagrams illustrating aspects of these subjects.

Booth 19

INTERNAL FIXATION OF CERVICAL FRACTURE OF THE FEMUR BY FOUR-FLANGED SPIKE:

Lemuel D. Smith, Marquette University School of Medicine, Milwaukee

Such a geometrical cross section implies the maximum of friction surface with a minimum of volume displacement of bone, thereby avoiding pressure atrophy of the adjacent bone structure. An exhibition of numerous cases, some in which a spike had been retained three to four years without evidence of bony absorption. Distortion of the head of the femur is not incidental to any method of fixation but is incidental to a type of circulation which might obtain in a particular case. External fixation or support is not necessary nor advisable with adequate internal fixation. Demonstration of cases on nonunion, three months to four years' duration exhibiting prompt union following immobilization without the administration of any other agency.

Booth 20

FRACTURES ABOUT THE ELBOW JOINT IN CHILDREN:

Fracture Service of the Milwaukee Children's Hospital, Milwaukee

This exhibit is designed to illustrate the following: 1. Supracondylar fractures; 2. Fractures of the lateral condyle and capitellum; 3. Fractures of the medial epicondyle; 4. Fractures of the radial head; 5. Fractures of the olecranon. Emphasis will be placed upon the following dicta: Supracondylar fractures are true surgical emergencies. Always examine for peripheral nerve injury and circulatory disturbance before manipulating an elbow fracture. Persistent pain, swelling, loss of motion, cyanosis and coldness are danger signals of Volkmann's ischemia. Volkmann's contracture is the result of ischemic myositis of the flexor muscles of the forearm. If treated immediately in the ischemic stage, the late sequelae can often be prevented. Volkmann's ischemia is an emergency to be dealt with by elevation and release of flexion; division of the fasciae if these measures fail. Epicondylar fractures usually require early, open reduction and internal fixation of the fragments. Fractures of the capitellum if incompletely reduced, may cause gross deformity and impaired function of the elbow joint, and late ulnar nerve palsy. Active use is preferable to passive; avoid forceful manipulation which increases rather than overcomes flexion deformity.

Booths 21, 26

LIPOCAIC, A NEW PANCREAS HORMONE:

Lester R. Dragstedt and John Van Prohaska, Department of Surgery, University of Chicago Clinics, Chicago, Illinois

Exhibit showing that depancreatized animals adequately treated by diet and insulin regularly die

within two to three months; extreme fatty infiltration of the liver is found in such animals but this fatty change may be corrected and life prolonged by the oral administration of a new hormone of pancreatic origin.

Booths 22, 23

THE TUBERCULIN TEST—MANTOUX:

Oscar Lotz, The Wisconsin Anti-Tuberculosis Association, Milwaukee

Complete necessary equipment, with the various tuberculins used will be on exhibit. Before the sessions and during intermissions, members of the Wisconsin Anti-Tuberculosis Association staff will be prepared to demonstrate and do the actual test on any who may apply. Reading and interpretation of reactions: Charts illustrating the percentage of reactors at various age periods and in various groups will be shown.

READING AND INTERPRETATION OF X-RAY FILMS:

Films showing the various types of lesions seen in pulmonary tuberculosis, including primary infections, incipient, moderately advanced and far advanced will be shown and interpreted.

Booth 24

BLOOD VASCULAR INJECTIONS:

P. F. Swindle, Marquette University School of Medicine, Milwaukee

The highly variable patterns of blood vessels are revealed by injecting the vascular channels with cinnabar. By clearing the tissues these blood vessels stand out in a complex network of different shapes. The blood vessels of the heart, lung, liver and brain of different animals are quickly contrasted in reference to their form, size and shape by this method of study.

Booths 25, 30

THE PATHOLOGIC PHYSIOLOGY, DIFFERENTIAL DIAGNOSIS AND TREATMENT OF HEMATOLOGIC DYSCRASIAS:

C. A. Doan, B. K. Wiseman and C. V. Moore, Ohio State University, Columbus, Ohio

Exhibit of graphs, charts and photomicrographs illustrating the following studies: Lymphoblastomas and lymphadenopathy diseases, congenital hemolytic jaundice, thrombocytopenic purpura, agranulocytic angina, hypochromic microcytic and hyperchromic macrocytic anemias, polycythemia vera, tuberculosis; the cellular reactions to hyperpyrexia; data on bone marrow, blood volume and plasma iron studies; demonstration of the supravital method of staining and studying living blood and tissue cells.

Booths 27, 28

THE OCCURRENCE OF ENDOCRINE DISORDERS, THEIR DIAGNOSIS AND THE RESULTS OF TREATMENT:

W. L. Culpepper, E. E. Madden, E. C. Olson, J. H. Hutton, Illinois Central Hospital, Chicago, Illinois

This material will be presented entirely by charts, posters and x-ray films. It will present a study of endocrine disturbances as they occur among railroad employees and private patients and in hospitals for the insane. The pituitary is involved very much more frequently than any of the other glands. The treatment of pituitary disorders in private practice and railroad employees is a very satisfactory procedure. The number of pituitary deficiencies seen among the population of hospitals for the insane is very large, but their treatment is seldom productive of any improvement in the mental status of the patient. The basal metabolic rate is influenced by other things than thyroid function, and a low basal metabolic rate does not always point to hypothyroidism, but to pituitary or adrenal deficiency and occasionally to some non-endocrine condition. A diagnosis of any endocrinopathy depends (1) on the exclusion of non-endocrine conditions, (2) on an accurate and detailed history, (3) on the information gained from a careful physical examination, and (4) and least important, on the data secured in the laboratory. Because of the current confusion regarding the significance of terms of various therapeutic agents involving particularly the gonadal and more particularly menstrual disorders, posters have been prepared which explain these various terms and set forth the indications for these various medicaments. Posters will present a statistical study of the results achieved by x-ray therapy. The record includes about 500 cases of hypertension, 300 of our own and over 200 collected from the practice of other physicians. Of our own cases nearly 10 per cent have had both hypertension and diabetes. This series is tabulated separately. A number of films of the sella turcica will be exhibited —some of patients who have responded satisfactorily to treatment and others that are classed as unimproved. A brief summary of the case history will be attached to each film.

DEATH OF DR. A. W. ROGERS

As this Journal goes to press, we learn of the sudden death of Dr. A. W. Rogers of Oconomowoc, long chairman of the Council, on August 27. Funeral services were held on August 30.

Technical Exhibitors At The Milwaukee Meeting

Thirty-five firms will exhibit with the Society in the technical exhibit section in Walker and Juneau halls in the Milwaukee Auditorium. A short description of the contents of the booths is contained in the sections below. Visit the exhibits.

A. S. Aloe Company

A. S. Aloe Company, in booth 22, will display a general line of surgical instruments and equipment for the physician and hospital. The new Aloe Short-Wave Diathermy, the Elliott Treatment Regulator, the new de Bakey blood transfusion instrument and other specialties will be featured. Messrs. R. E. and R. G. Girard, Aloe representatives, will supply those interested with brochures on Aloe Steeline, the most modern creation in physician's fine treatment room furniture.

The Newest Supplies By H. G. Fischer and Company

The latest Fischer model of short wave, x-ray and other apparatus, to be exhibited and demonstrated by H. G. Fischer and Company, will interest physicians because of their many unique features of design and performance. The complete Fischer line includes shock-proof x-ray apparatus, short wave units, combination cabinets, galvanic generators, ultraviolet and infra-red lamps, tissue-cutting and other units, and accessories and supplies. Fischer apparatus has been recognized as highest quality for more than twenty-five years. Physicians attending the convention are invited to ask for demonstrations of models in which they are interested or to consult with Fischer representatives regarding technics made available by Fischer apparatus.

Latest Surgical Instruments Featured

V. Mueller and Company's modern surgical instruments and equipment will be displayed at booth 29.

Maryan colposcope for diagnosis of pre-invasive carcinoma of the cervix, Herb–Mueller Ether-Vapor suction machine, Mueller bone surgery engine and accessories, a complete line of Latex catheters, drains and urological instruments, and many surgical items of unusual value will be demonstrated.

Jones Metabolism Equipment Company

Be sure to stop at booth 24 when you are visiting the technical exhibits and get a few very interesting and educational facts on the New Jones Motor Basal unit.

It is Council-accepted, guaranteed for life, contains no water, and embodies many exclusive features which will interest you.

Kremers-Urban Company

In booth 10 Kremers-Urban Company will display its extensive line of pharmaceuticals. Stop by and visit.

Surgical Instruments On Display

The Boehm Surgical Instrument Corporation will exhibit recent developments in electrically-lighted surgical instruments, cystoscopes, resectoscopes, bronchoscopes, rectal instruments, and their complete line for every orifice of the body.

General Electric X-Ray Corporation

Physicians interested in the human heart will have an opportunity of inspecting General Electric's new light-weight, low-priced instrument which brings accurate, dependable, and economical electrocardiography within the financial reach of every doctor. This splendid apparatus features the exhibit of the General Electric X-Ray Corporation in booth 13. Messrs. McIntosh, Victor and Dorschel of the corporation's Wisconsin staff will be in attendance.

Books For The Library

W. B. Saunders Company, publishers, booth 20, will exhibit a complete line of their books. Of outstanding importance will be the new Warbasse–Smyth three-volume work on "Surgical Treatment." This work has been entirely remade and covers all kinds of treatment for every surgical condition met with in general practice. Other new books include Tuft's "Clinical Allergy," Jackson's "Diseases of the Larynx," Buie's "Practical Proctology," new editions of Cecil's "Medicine" and of Bastedo's "Materia Medica." Then, of course, there are such standard works as Bickham's "Operative Surgery," Curtis' "Obstetrics and Gynecology," and Christopher's "Textbook of Surgery" and "Minor Surgery."

Learn Value Of Horlick's Malted Milk

You are cordially invited to visit the Horlick's Malted Milk Corporation exhibit in booth 25. Your attention is drawn to the special advantages of Horlick's malted milk as a nutritious, easily digested food-drink, often acceptable when no other food can be tolerated. Its special value will be pointed out—

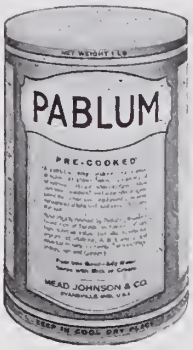
1. For infant feeding;
2. For growing children;
3. For nursing mothers;
4. For the undernourished;
5. For the sick, especially in fever and ulcer diets;
6. For the convalescent;
7. In sleeplessness.

Milwaukee Optical Manufacturing Company

Trained opticians will be in attendance at the display of the Milwaukee Optical Manufacturing Company in booth 27. We invite you to discuss your optical problems with our representatives.

Philip Morris Cigarettes

Philip Morris and Company Ltd. Inc. will demonstrate the method by which it was found that Philip Morris cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than ordinary cigarettes in which glycerine is employed.



Mead Johnson and Company

Representatives of the company will be prepared to discuss a number of recently introduced products in the vitamin field and the general field of nutrition, as well as a number of new services. It is always the plan and desire of the company to have something new and interesting to discuss with its physician friends at this annual meeting.

All Lederle Products To Be Displayed

Lederle Laboratories, Inc., will exhibit in booth 36 a complete assortment of their biological and pharmaceutical products, featuring specific type antipneumococcic sera; Neufeld type determination sera; concentrated solution liver extract in 1 cc. vials; highly concentrated cod liver oil products. Literature and display packages of all Lederle products will be available.

Opportunity To Discuss Your Allergic Problems

The Arlington Chemical Company, Yonkers, New York, is featuring its proteins and pollens for diagnosis and desensitization. Especially featured are the one dollar diagnostic pollen outfits and the special $25 and $35 diagnostic protein outfits. Dr. J. H. Frazer, medical director, will be in charge at the booth and will be pleased to have any of the Wisconsin physicians call and discuss their allergic problems.

Hurley X-Ray Company

In booth 11, next to the registration booth, the Hurley X-Ray Company will display some of the latest shockproof Picker–Waite x-ray units and accessory items, together with Burdick short wave diathermies, electro-surgical units, ionization equipment and light therapy. Other accessory items of interest will be included in the exhibit.

Physicians' and Surgeons' Supplies

Booth 21 will be occupied by Arthur H. Neumann, Inc., physicians' and surgeons' supply house. Arthur H. Neumann and Glen F. Nonhof, officers of the firm, will be on hand to meet you personally. See our display of office furniture, equipment, instruments, and Mulford Biologicals.

Full Line Of Books On Exhibit

The C. V. Mosby Company will exhibit its complete line of medical publications. Visitors attending the convention are cordially invited to look over the new synopsis books; Meakins' "Practice of Medicine"; Horsley–Bigger's "Operative Surgery"; Titus' "Management of Obstetric Difficulties"; and other new Mosby publications.

New Digest Shown

The busy, progressive physician will be interested in the new "Digest of Treatment," published by J. B. Lippincott Company (booth 3).

The "Digest of Treatment" is pocket-sized and contains from forty to forty-five digests of articles on treatment culled from over two hundred medical journals published in various parts of the world. It was first shown at the American Medical Association meeting in Atlantic City, and the large subscription list, which continues to increase, assures us that a real need is being filled by "Digest of Treatment."

United States Hospital Supply Company

United States Hospital Supply Company of Minneapolis asks you to visit booth 1, where they are displaying items of interest to the medical profession, featuring the proved items of the past and the new items and developments in the surgical, supply, and physiotherapy fields.

United States Standard Products Company

Our Wisconsin representatives will appreciate seeing you at our exhibit in Milwaukee, booth 12, sometime during the meeting of the State Medical Society.

Squibb To Show Complete Line

Physicians attending the meeting of the State Medical Society of Wisconsin are cordially invited to visit the Squibb exhibit in booth 6.

The complete line of Squibb's vitamin, glandular, arsenical and biological products and specialties, as well as a number of interesting new items, will be featured.

Well-informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

The Page Milk Company

The Page Milk Company will feature Page vitamin D evaporated milk, an evaporated milk developed especially for the pediatrists' infant feeding work, yet suitable for general home use.

Kelley-Koett Manufacturing Company

In booth 34 Keleket will exhibit a complete self-contained x-ray unit offering facilities for fluoroscopy, radiography and Potter Bucky diaphragm radiography. This complete outfit features the latest shockproof design and occupies a limited floor space that makes possible installation in practically any area.

The exhibit will contain other new developments in x-ray equipment as well as a large and attractive display of x-ray films.

Representatives in attendance will be pleased to answer any questions concerning equipment or discuss any matters pertaining to x-ray.

Gerber Products Company

Gerber's cordially invite you to stop and see their two new products, Strained Apricot–Apple Sauce and Strained Liver Soup with Vegetables.

Gerber's have two types of literature, some for distribution to patients and some for professional use only. Samples of the foods and the literature for examination will be sent to registrants at the booth.

Scanlan-Morris Company

Scanlan–Morris Company will exhibit the famous surgical ensemble consisting of the Scanlan–Balfour operating table and the Operay Multibeam light with swivel offset hanger. Twin-filament illumination by Operay Multibeam and Operay Surg-O-Ray will be demonstrated. An all-automatic electric instrument sterilizer for physicians' offices and hospital use will also be available for inspection.

Merck and Company, Inc.

Cebione—Synthetic vitamin C.
Mecholyl—Stimulant of parasympathetic nerves.
Vinethene—Rapidly acting inhalation anesthetic for short operative procedures.

These preparations are on exhibit at the Merck booth, as are also the older established Merck medicinal specialties such as Tryparsamide, Arsphenamines, Erythrol Tetranitrate, Digitan and Stovarsol.

An Educational Exhibit

The Carnation Company invites you to visit booths 18 and 19, where you will see the seven important steps in the production of irradiated Carnation milk presented by means of animated illumination. The methods used in testing and protecting the quality of Carnation milk will also be demonstrated and explained.

Medical Protective Service

The Medical Protective Company is represented at booth 14 where you are invited to call. Medical Protective service is an institution of the medical profession, whose legal liability problems we have concentrated upon for thirty-eight years. Bring your professional liability questions and problems to booth 14.

Mellin's Food On Display

The proportion of maltose and dextrins in Mellin's Food, the protein and mineral content and the favorable effect of Mellin's Food on the digestibility of milk are distinctions that commend Mellin's Food as a modifier of milk for the feeding of infants and for the preparation of nournishment for adults requiring a restricted diet. Physicians are invited to call at booth 30 to discuss their feeding problems with us.

Newest Publications To Be Featured

Lea and Febiger will exhibit at booth 26, under the direction of Mr. E. Tickner, the following new works: Fishberg's "Heart Failure," Atkinson's "The Ocular Fundus," Brahdy & Kahn's "Trauma and Disease," Davidoff & Dyke's "Normal Encephalogram," Davis' "Neurological Surgery," Levinson & MacFate's "Clinical Laboratory Diagnosis," Mattice's "Chemical Procedures," Rowe's "Clinical Allergy," Saxl's "Pediatric Dietetics," Werner's "Endocrinology," Wesson & Ruggles' "Urological Roentgenology" and Boyd's "Introduction to Medical Science." New editions will be shown of Bridges' "Dietetics," Cabot's "Urology," Cushny's "Pharmacology and Therapeutics," Gifford's "Ocular Therapeutics," Gray's "Anatomy," Holmes & Ruggles' "Roentgen Interpretation," Joslin's "Treatment of Diabetes," Kuntz's "Neuro-Anatomy," Peter's "Extra-Ocular Muscles," Thornton's "Medical Formulary," and Wigger's "Physiology."

Caffeine In Coffee Main Theme Of Exhibit

Visit the Kellogg booth for a cup of refreshing Kaffee Hag coffee. Special exhibits showing the stages in decaffeinizing coffee are displayed and a complete explanation of the process is given. Reprints of reports covering research to determine the effects of caffeine are available, as well as nutrition material. The exhibit is in charge of Mrs. Winefred B. Loggans of the home economics staff at Battle Creek

Five Types Of Petrolagar On Exhibit

Physicians are cordially invited to visit booth 32 where Petrolagar Laboratories, Inc. will be represented by Mr. Pasko.

Petrolagar is an emulsion of pure mineral oil (65% by volume) and agar-agar, accepted by the Council on Pharmacy and Chemistry of the American Medical Association for the specialized treatment of constipation. Scientific drawings and literature on the subject of constipation will be available in addition to samples of the five types of

Newest Surgical Instruments Shown

The Roemer Drug Company will occupy booth 7, where they will exhibit the latest types of surgical instruments. Founded in 1898 with the determination to handle high quality merchandise, the company has maintained this policy, and any purchase from them may be made with the full assurance that the items purchased are right in every respect.

Borden's 80th Year

A warm welcome awaits all physicians at the Borden booth, number 35. Specially trained representatives will gladly provide information on Borden products, notably Dryco, Special Dryco, Klim, Beta Lactose, Merrell–Soule prescription products and Borden's irradiated evaporated milk.

Register At H. J. Heinz Company Booth

H. J. Heinz Company, makers of the 57 Varieties, invites you to visit their new exhibit featuring strained foods, breakfast cereals, tomato juice, and olive oil.

Stop for a cold drink of Heinz tomato juice and register for the fourth edition of the Nutritional Chart. The previous editions were so enthusiastically received that it was thought advisable to make frequent revisions in order to keep abreast with the rapid advances in the field of nutrition.

HALL OF HEALTH...

Milwaukee Auditorium

September Eleventh Through Seventeenth

Nineteen Thirty-Seven

Open to the public without admission
nine a.m. to ten p.m. daily

Origin of the Hall of Health

THE Council of the State Medical Society of Wisconsin decided in September, 1936, to sponsor a health exhibit for the layman at the 1937 annual meeting of the Society, in the main arena of the Milwaukee Auditorium, which has about 23,000 square feet of floor space. The nature of the exhibit is somewhat similar to that in the Hall of Man at the Deutsches Hygiene Museum in Dresden, Germany, and the medical science displays in the Hall of Science, A Century of Progress, 1933–1934. The basic facts on the anatomy and physiology of man, the causes and prevention of disease, and the conservation of health are emphasized. The value to man of the interrelationship of the medical sciences and public health is clearly evident. Too frequently the scientific discoveries that make for the protection of the public health by sanitary engineering measures, vaccination, and serum therapy are forgotten by the public.

The tremendous accomplishments in the field of the public health have been made possible through not only the desire of medical men to search for scientific truth but also their freedom to find the truth through whatever channels have seemed the wisest to them. The Hall of Health is dedicated to the public good in the hope that freedom to search for the truth and to apply the gifts and knowledge of science will be conserved to benefit, in a magnified manner, the bodily and mental health of man in the future.

Education of the Public

The progress that has been made and the progress that is to come in the prevention as well as correction of such diseases as tuberculosis, cancer, diseases of the heart, Bright's disease, arthritis, dental disease, diseases of the mental and nervous system necessitates a continuously growing cooperation between the public and the doctors of medicine and dentistry. Education of the public to the many aspects of medical progress is essential if we are to realize the widest possible benefits in the application of scientific medicine. The Hall of Health in the Milwaukee Auditorium is one of the efforts that your Wisconsin doctors of medicine and dentistry, in cooperation with public health officials, pharmacists, and nurses, make to bridge the gap between the layman and the doctor.

Doctor and Teacher

The logical teacher, as regards the form and function of the human body; how to repair it when disease strikes; how to find and avoid trouble; how to conserve health and life; and how to apply the knowledge already available, is the doctor. He is the trained expert in the individuality of man in health and illness. The teacher explains and demonstrates, but, in order to influence for good the actions of others, the subject matter must be practically applied. No one is better equipped to act as an educator in the field of health and disease than the family physician and dentist,—those who are in the front line in the fight against disease and in its prevention. In order that the aid and advice of those devoting their lives to the interests of health be used most advantageously, there must be the broadest dissemination of fundamental health facts. Many diseases are peculiar in their reactions to certain people. After your doctor has taken a thorough history of you and your symptoms and has made a complete physical examination of your body, he is in the best position to act as your health adviser. Adequate protection of your health requires an opportunity for study by the doctor who has the necessary scientific aids at his command. When people once realize these facts, they will not waste their money or precious time on useless and often harmful patent medicines and faulty advice.

Acknowledgments

The Council on Scientific Work of the State Medical Society of Wisconsin expresses gratitude and sincere appreciation to the Milwaukee Common Council for donating the main arena of the Milwaukee Auditorium, to the management of the Milwaukee Auditorium for helpful cooperation, and to the exhibitors who financially and actively, by sponsoring specific exhibits, have made possible the first scientific and professional cooperative exhibit in Wisconsin on Man, Medical Science, and Public Health.

The Council on Scientific Work
State Medical Society of Wisconsin

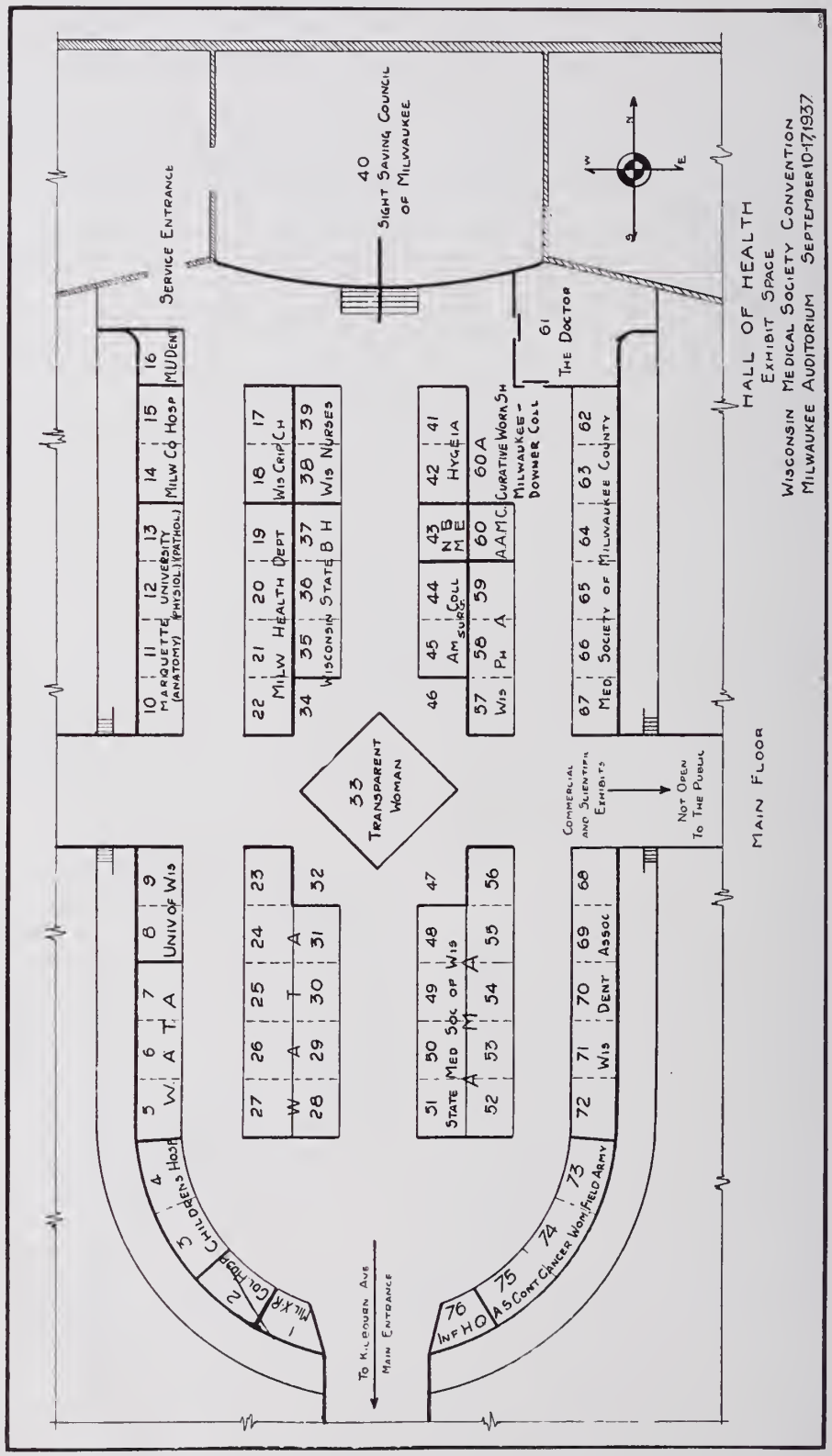
Dr. Eben J. Carey,
Director of Exhibits,

Dr. W. S. Middleton,
Chairman,

Dr. James A. Evans,

Dr. H. A. Sincock,

Dr. George W. Krahn.


HALL OF HEALTH
EXHIBIT SPACE
WISCONSIN MEDICAL SOCIETY CONVENTION
MILWAUKEE AUDITORIUM SEPTEMBER 10-17, 1937
MAIN FLOOR
SERVICE ENTRANCE
40 SIGHT SAVING COUNCIL OF MILWAUKEE
61 THE DOCTOR
33 TRANSPARENT WOMAN
COMMERCIAL AND SCIENTIFIC EXHIBITS
NOT OPEN TO THE PUBLIC
TO KILBOURN AVE MAIN ENTRANCE
10 MARQUETTE UNIVERSITY (ANATOMY) (PHYSIOL.) (PATHOL.)
11 12 13 14 15 16 MILW CO HOSP MU DENT
22 21 20 19 18 17 MILW HEALTH DEPT WIS CRIP CH
34 35 36 37 38 39 WISCONSIN STATE B H WIS NURSES
46 45 44 43 42 41 AM SURG COLL N B M E HYGEIA
57 58 59 60 60A WIS PH A AAMC CURATIVE WORK SH MILWAUKEE-DOWNER COLL
67 66 65 64 63 62 MED SOCIETY OF MILWAUKEE COUNTY
5 6 7 8 9 W A T A UNIV OF WIS
27 26 25 24 23 W A T A
28 29 30 31 32
51 50 49 48 47 STATE MED SOC OF WIS
52 53 54 55 56 A M A
72 71 70 69 68 WIS DENT ASSOC
1 MIL X.R. 2 COL HOSP 3 CHILDRENS HOSP 4
76 INF HO 75 AS CONT CANCER WOM. 74 FIELD ARMY 73

■ Booth 1

HISTORY OF X-RAYS

The Milwaukee Roentgen Ray Society

The exhibit is planned to show some aspects of the history of x-rays in medicine. Ten photographic reproductions, show their discoverer, Professor Roentgen, and the places in which he worked. A number of x-ray tubes are exhibited. One of them is probably the first used in the state of Wisconsin and is of the same type as the one used by Roentgen. A few weeks after the discovery of x-rays in Germany a roentgenogram (x-ray picture) of a hand was made by J. S. Janssen, Milwaukee. Its copy is shown. A series of tubes used by Mr. Janssen demonstrates the progress in the technical aspect. Modern tubes are exhibited for comparison. A number of roentgenograms of different parts of the body, taken in 1919 and 1920 on glass plates, are shown and to demonstrate the progress in medical roentgenology films taken in 1937 are exhibited in conjunction with the earlier pictures. A life-sized roentgenogram of the entire human body has been loaned by the Eastman Kodak Company to show the entire body as it appears when x-rayed.

■ Booth 2

THE STORY OF ANESTHESIA

Columbia Hospital, Milwaukee

This exhibit will be a combination of a pictorial representation and a few models of anesthetic apparatus similar to those used in early medical history. There will be pictures representing the story of ether and gas as they were first used by Dr. Morton in 1844. Other pictures will present the ancient operating rooms in the days of the barber surgeon, showing the horror associated with the lack of anesthesia during an operation. The progress of the specialty of anesthesia will be traced (in pictures) from that early day to the present era of the ultramodern equipment available for the surgeon and his assistants. This series of pictures will carry the observer through the pre-Biblical day anesthesia, of the application of pressure and heat or cold to produce a small area of numbness, to the crudity of the first inhalation anesthetics, practiced among groups of medical people cloaked in long frock coats and wearing beards, requiring three to five persons to restrain a patient while the anesthetic was given. Then the modern day—quiet, peaceful, tranquil atmosphere requiring a small operating force and one anesthetist.

■ Booths 3, 4

THE PREVENTION AND TREATMENT OF BURNS

Milwaukee Children's Hospital

(1) Exhibit of dioramas, charts and posters showing (a) the importance of prevention, (b) common causes of burns in children, and (c) possibilities of educational work by hospital organizations. (2) Exhibit of charts giving general outline of treatment, (a) demonstration of method of applying tannic acid, and (b) the importance and value of tannic acid solutions in the treatment of burns illustrated by photographs and photomicrographs. (3) Motion picture illustrating the common causes of burns in the home.

■ Booths 5, 6, 7 and 23-32

PREVENTION OF TUBERCULOSIS

Wisconsin Anti-Tuberculosis Association, Milwaukee

What is tuberculosis? How do you get it? How is it discovered? What do you do about it? These important questions concerning a preventable and curable disease which takes more than 1,000 lives annually in Wisconsin, are answered in the exhibit of the Wisconsin Anti-Tuberculosis Association. Tuberculosis is as old as history and while modern methods of combating it have forced it down from first to seventh place as a cause of death in Wisconsin, it still remains a grave problem because it is a communicable disease. It can be, and is passed from sick persons to well persons. The ultimate control of the disease depends as much upon the individual as it does on the organized fight against it. No home is safe from tuberculosis until all homes are safe. How to protect your home is shown in the W.A.T.A. exhibits. The displays are in two sections. In booths 5, 6, and 7 will be found the new traveling health exhibit of the Association. Housed in a 24-foot trailer, this display is the only one of its kind in the United States. Booths 23–32 inclusive, will offer a wide range of information in both statistical and exhibit form. One of the outstanding displays of this group is the large spot map of Wisconsin showing by means of cut-out human figures, the location of tuberculosis deaths by age and sex last year.

A series of photographic murals depicts some of the modern diagnostic methods used by physicians to combat tuberculosis. At various times during the day and evening a motion picture "Behind the Shadows" will be shown.

■ Booths 8, 9

LABORATORY DIAGNOSIS OF DISEASE

State Laboratory of Hygiene, University of Wisconsin Medical School and State Board of Health, Madison

This exhibit is designed to demonstrate the significance of laboratory tests in the diagnosis, control and prevention of disease. Standing in front of the exhibit the large map of the State shows the availability of state laboratory service to all parts of Wisconsin. The large light located in Dane County represents the State Laboratory of Hygiene at the University and the smaller lights represent the branch and cooperative laboratories situated throughout the State. These laboratories examined 160,182 specimens last year, all of which were done either for the purpose of assisting physicians in the diagnosis of disease, of determining the proper length of quarantine because of a communicable disease or of solving sanitary problems in connection with drinking water supplies, sewage disposal plants and stream or lake pollution. On either side of the center map there are arranged a number of placards on which a brief description is given of the kind and variety of work of these laboratories. Included in the exhibit are large charts and several photographs which illustrate the importance of the early diagnosis of cancer. The large tank is filled with carbon dioxide and the attendant will demonstrate how it is used to aid the surgeon at the time of operation in the recognition of cancerous from noncancerous growths. The illuminated viewing boxes on either side demonstrate the bacteriological methods used in the early recognition of tuberculosis, pneumonia, streptococcus, sore throat, scarlet fever, typhoid fever and various other diseases. On the bench at the left under the first microscope is the micro-organism which causes syphilis, and under the second, the one which causes gonorrhea. On the wall above the microscopes are charts describing briefly the pertinent facts about the control of these diseases. These and many other demonstrations tell the story of the functions of the bacteriological and pathological laboratories in the control of disease. The attendant in charge will amplify the exhibits by special talks.

■ Booths 10, 11

THE STORY OF EARLY HUMAN LIFE (EMBRYOLOGY)

Department of Anatomy, Marquette University School of Medicine, Milwaukee

This exhibit consists of a graded series of human embryos and fetuses carefully selected to show advancing stages of development from a few weeks after conception to the time of birth. The embryos in stages of development too small to be seen without a microscope are greatly magnified and illustrated diagrammatically. Embryos from the fifth week to the time of birth are arranged in sequence in especially constructed demonstration cases. The nutritional relations of the embryo to the mother are also explained.

■ Booth 12

THE PATTERN OF BLOOD VESSELS

Department of Physiology, Marquette University School of Medicine, Milwaukee

The highly variable patterns of blood vessels are revealed by injecting the vascular channels with cinnabar. By clearing the tissues these blood vessels stand out in a complex network of different shapes. The blood vessels of the heart, lung, liver and brain of different animals are quickly contrasted in reference to their form, size and shape by this method of study. This exhibit places before you in clear and concise form the true picture of the circulatory system.

■ Booth 13

CANCER

Department of Pathology and Roentgenology, Marquette University School of Medicine, Milwaukee

An exhibit demonstrating the common clinical methods for the study and diagnosis of malignant (cancerous) growths: (1) The Biopsy (examination of tissues taken from the living body)—30 transparent photomicrographs of the pathology of cancers showing the invaluable service of the micro-

scope in early diagnosis. (2) The Radiograph—12 x-ray pictures of frequent cancers of the stomach, intestines, bones, lungs and other organs, showing the great value of the x-ray in the diagnosis of deep tumors. (3) The Autopsy (examination of organs after death)—30 specimens showing the changes caused by the more common cancers of the lung, stomach, liver, intestines, bones, skin, breast, uterus, etc., illustrating the utility of the postmortem examination in the investigation of cancer.

■ Booths 14, 15

BRIGHT'S DISEASE

Department of Medicine, Milwaukee County General Hospital, Marquette University School of Medicine

This exhibit presents sixty mounted specimens of kidneys illustrating practically every variety and stage of Bright's disease. Each specimen is accompanied by a highly magnified photograph of the cell changes of the kidneys and a concise history of the case. An historical exhibit on Bright's disease is also included. The prevention of chronic nephritis is emphasized by showing that careful urinary analysis during attacks of acute infections leads to early treatment and complete eradication of the inflammation in the kidney.

■ Booth 16

DIAGNOSIS OF DISEASES OF THE MOUTH, STRAIGHTENING OF THE TEETH WITH SPECIAL EMPHASIS ON THE TEETH OF THE SMALL CHILD

Marquette University Dental School, Milwaukee

I. Department of Oral Diagnosis—Photographs of various diseases of the mouth, including tumors of the mouth, acute abscesses of tooth sockets, tooth decay and cavities, periodontitis (pyorrhea), cysts of the jaws, and other mouth and dental disturbances. II. Department of Pedodontia (dentistry for children). A. Models and photographs showing excessive loss of tooth structure due to uncontrolled tooth decay. B. Stages of tooth development shown by a series of x-ray films, to demonstrate the relation of temporary to the developing permanent teeth. C. Series of pen sketches showing progress of decay and ultimate effects upon the first and permanent teeth. D. A group of models showing methods of restoring function in teeth which have been damaged by decay. III. Department of Orthodontics (correction of teeth and facial deformities). A. Malocclusion (improper or abnormal position of teeth impairing normal chewing of food) due to early extraction of teeth. 1. Models showing malocclusion due to early loss of first permanent molar. 2. Model showing malocclusion due to early loss of childhood cuspids. 3. Model showing malocclusion due to early loss of second temporary molar. B. Models and photographs showing malocclusions due to mouth breathing. C. Models showing malocclusion due to indifferent mastication. D. Models and photographs showing malocclusion due to habits: 1. Thumbsucking. 2. Tongue habits. 3. Lip biting habits. 4. Overactive mentalis muscle.

■ Booths 17, 18

PREVENTION OF DEFORMITIES

Wisconsin Crippled Children Division, Madison

The exhibit which the Crippled Children Division will have in the Hall of Health includes both posters and moving pictures. This poster exhibit contains mounted photographic illustrations of the transportation, physical therapy, rest room, lunch and educational facilities provided through the crippled children schools. There is a poster map showing the location of the ten orthopedic schools in Wisconsin and indicating the distribution of territory served by each school. Another map indicates the distribution of the crippled children field clinics for the fiscal year, 1937–1938. Further orthopedic school information is carried on posters giving the classifications of children served by the orthopedic schools according to origin of disability and according to diagnosis. A chart is presented showing the rate of turnover of orthopedic school enrollment and the status of the condition of the children dismissed from orthopedic schools. Chart material will be presented giving the present case load of the Crippled Children Division. There will be four reels of motion pictures showing school services for crippled children. The material is divided in such a manner as to make it possible to show certain phases of orthopedic school activity in which an individual might be interested. Ten or twelve minutes is required to run each reel.

■ Booths 19, 20, 21, 22

PUBLIC HEALTH

The Milwaukee Health Department

Visual health education material is presented and an account of the official public health program of the city of Milwaukee by means of motion pictures, charts and film strips. Demonstrations on home nursing and nutrition are conducted on a schedule alternating with the film showing. In addition to films regarding the maintenance of good health, and the importance of regular dental and medical care, the public health facilities of the city and the work of health department physicians, nurses, bacteriologists, chemists, milk and food inspectors, and sanitary police are shown. The display graphically records results of various measures taken to reduce specific sickness and mortality rates and to improve health standards for infants, preschool and school children. Comparisons are shown of conditions in Milwaukee before and after city programs of prevention and correction were instituted. Included among other subjects are records of procedures and progress against various diseases such as tuberculosis, diphtheria, typhoid fever, scarlet fever and enteritis, (inflammation of the intestine). People who are interested in Milwaukee's report in the national health contest have an opportunity to see the material submitted to the judges. This report resulted in an award of first prize for Milwaukee among the large cities of the United States for health conservation work during 1936.

■ Booth 33

TRANSPARENT WOMAN

S. H. Camp and Company, Jackson, Michigan

This unique figure was created by the staff of the Hygiene Museum in Dresden, Germany, and was brought to this country by Mr. S. H. Camp of Jackson, Michigan, as a valuable contribution to the improvement in public health. Through her transparent skin one sees the complex internal system of the

THE TRANSPARENT WOMAN
Dr. J. H. J. Upham, president of the American Medical Association, pointing to this unique figure created in Dresden, Germany.

human body and obtains thereby a unique object lesson in the value of health preservation. The figure is constructed entirely of a transparent material making every organ, even the delicately designed veins and circulatory system, clearly visible to the observer as though he were possessed of x-ray eyes. The figure stands on a gleaming round silver mounting in the center of the opaque glass-covered interior of an octagonal walnut wood base. Inside the glass interior are 121 lamps which light up the figure indirectly after each demonstration. Inside the figure itself are twenty sets of two lamps each which light up each organ in sequence while the exhibit is being demonstrated. These lamps were specially constructed for the exhibit and are only four volts each. Thus while the figure is amply lighted for demonstration it will not become overheated. The lamps in the interior of the figure are shaped according to the contour of each organ. As each is illuminated, its name is automatically flashed on a glass label on the side of the base. These are in duplicate for the convenience of onlookers. During its demonstration the brain, from which the skull cap is removed, is first illuminated; then the larynx, thyroid gland, lungs, heart, etc., follow in turn. At the close, the whole figure stands forth in natural colors, fully illuminated from the base. The exhibit, which is ingenious in more ways than one, may also be demonstrated manually so that the doctor demonstrating it may light up any organ, or any number of organs at the same time. The figure operates on its own motor. The Transparent Woman has been exhibited at the Museum of Science, Radio City, New York; Franklin Institute, Philadelphia; Hall of Man, Buffalo Museum, New York, and at the Great Lakes Exposition, Cleveland, Ohio.

■ **Booths 34-37**

PREVENTIVE MEDICINE AND PUBLIC HEALTH

The Wisconsin State Board of Health, Madison

In booths 34–37, the Wisconsin State Board of Health presents in graphic form the scope of its services to the State, using a typical municipality as the unit through which its many functions are discharged. Booths 34–36 have been consolidated to accommodate a silhouette portraying a city of medium size, sufficient in detail to mark buildings that house the usual variety of civic, industrial, business and domestic units. From these buildings, which are identified by appropriate inscriptions, ribbons lead to respective placards on the wall above, setting forth in necessary brevity the functions of the State Board of Health. A few minutes' study of this presentation reveals that routine activities of the department include:

Licensing:

Hotels, restaurants, tourist rooming houses, barber shops, beauty parlors, maternity hospitals, and funeral establishments, exercising sanitary supervision over each.

Health Advisory Service To:

District health officers, sanitary engineers, public health nurses.

Nursing Supervision:

Standardizing public health nursing, certifying public health nurses.

Vital Statistics:

Receiving and tabulating reports of local health officers covering all cases of reportable diseases and tabulating of birth, death, marriage and divorce records received from local registrars.

Preventive Medicine:

Assisting, cooperating, and promoting through local practicing physicians programs of tuberculin testing, vaccination against smallpox and immunization against diphtheria, fostering goiter prevention among school children.

Maternal and Child Health:

State Board of Health in cooperation with local county medical societies conducts maternal and child health centers with the aim of encouring an establishment on a continuing local basis.

Dental Service:

The board provides an educator in dental hygiene to function through schools.

Social Hygiene:

Through the State Board of Health a man and woman lecturer travel throughout the State appearing before schools discussing social diseases and social hygiene. The board also operates venereal disease clinics in cooperation with certain municipalities.

General Health Education:

The newspapers in Wisconsin are provided with factual information on health matters, printed leaflets and booklets for the general public.

Laboratories:

In cooperation with the University of Wisconsin and certain cities, the State Board of Health operates public health laboratories.

Through these and other examples, the State Board of Health exhibit portrays vividly the extent of its functions, underlying all of which is a broad policy of progress through education. Set apart in the adjoining booth 37 is an interesting working model of a modern sewage treatment plant, representing a phase of public health in which our state department has seen phenomenal strides during the past five years.

■ Booths 38, 39

MILESTONES OF NURSING

The Wisconsin State Nurses' Association

The Wisconsin State Nurses' Association shows in its exhibit the steps in the development of nursing and indicates how these have contributed to the preparation of the present professional nurse, who is scientifically prepared to give service to the public and is known as "The Graduate Registered Nurse." Only the high lights are presented and an attempt has been made to restrict these largely to the development of nursing itself rather than of medicine, surgery and other types of humanitarian care. While the portrayal starts with the pre-Christian period, major emphasis is placed on the developments since I A.D. Special attention is given to the achievements of the last thirty-five years in the nursing field. Wisconsin has at the present time more than 5,000 graduate registered nurses, engaged in the various phases of institutional public health and private duty nursing.

■ Booth 40

THE HALL OF SIGHT

The Sight Saving Council of Milwaukee, Inc.

The purposes of the Sight Saving Council of Milwaukee are to endeavor to determine, through study and investigation, ways and means to further the preservation of human eyesight and to disseminate knowledge concerning this subject. The personnel of the committee comprises physicians, illuminating engineers, eye physicians, health and school officials, architects, safety engineers and educators, correlating the activities of these groups and various agencies. It is in no sense a commercial venture, but purely educational along the lines of preventive medicine, aiming to conserve the heritage of our most valued special sense—good eyesight. The exhibit, lecture and motion pictures portray in graphic form some of the dangers incident to the daily use of our eyes, and means to minimize or eliminate the more common hazards. The exhibit unfolds in logical sequence the history of artificial lighting and its effect upon eyesight. The unit of measure of lighting is explained and applied to practical advantage. The nature of common eyesight defects is shown together with the usual means of correction. The combination of good light properly applied together with properly corrected eyesight, if such correction is indicated, is emphasized. A graphic study of common errors in the application of the eyes to close work and to the proper utilization of daylight is demonstrated. Emphasis is placed upon the proper use of natural conditions, effected by little or no financial outlay to provide working conditions least harmful to the eyes. A study has been made of the conditions under which the eyes are used by university students during study periods in students' rooms. Faulty use is pictured together with remedial suggestions. Lectures and demonstrations concerning proper and faulty artificial lighting are given at stated times. Educational motion pictures carry on the story of eyesight and its application. Literature concerning this subject will be available at the exhibit.

The exhibit units demonstrate: (1) The historical development of lighting. (2) Quantity of light for seeing. (3) Measuring light and visibility. (4) Intensity of light determines size of object clearly seen. (5) Speed of seeing depends on light intensity. (6) Methods of reducing glare. (7) Glare causes discomfort and reduces ability to see. (8) Effect of color. (9) Balanced light for eye comfort. (10) The shade makes the difference. (11) Light colors reflect, dark colors absorb and distort light. (12) Kinds of lighting. (13) An example of good lamp construction.

■ Booths 41, 42

HYGEIA, THE HEALTH MAGAZINE

American Medical Association, Chicago, Illinois, and the Woman's Auxiliary to The Medical Society of Milwaukee County

Popular articles on health are contained in Hygeia, The Health Magazine.

■ Booth 43

MEDICAL EXAMINATIONS

National Board of Medical Examiners, Philadelphia

Exhibit of charts describing the work and progress of the National Board of Medical Examiners and the results of its examinations.

■ Booths 44, 45, 46

CANCER AND HOSPITAL CARE

American College of Surgeons, Chicago

The exhibit on cancer consists of colored drawings, oil paintings, and plaques in which will be shown the course of cancer if untreated and as it may be modified by treatment. Statistics of cured cancer cases are presented in graph form. There is also a series of suggestions which may be of service to the public in the prevention, diagnosis, and the cure of this disease. Numerous paintings depict different types of superficial cancer and their methods of diagnosis.

Hospital care is shown in two ways. One is by the use of an elaborate diorama which shows all of the different services in a hospital which are at the disposition of each patient and how the patient constitutes the central factor about which hospital activities rotate. The exhibit also shows in pictorial form the application of scientific medicine and institutional methods in the care of hospital patients and how these features have shared the general progress that has been made in all science.

■ Booths 47-56

SYPHILIS

American Medical Association, Chicago, Illinois

Syphilis may effect 10 per cent of the population in some communities. The disease is caused by a spirochete that is quite easily killed outside the body, but which is most tenacious once it has become lodged within human tissues. About half the new cases of syphilis that occur are contracted through illicit relations, while the other half are innocent infections passed on from the first group. The exhibit has a large "microscope" showing the spirochete; numerous charts and drawings presenting various phases of the campaign against syphilis, how it spreads and how it may be controlled, and transparencies showing a number of cases of syphilis innocently contracted. Exposition files contain additional information.

INFORMATION ABOUT HEALTH

American Medical Association, Chicago, Illinois

An increasing number of people are becoming interested in health and how it may be maintained. Such matters as rest and sleep, weight control, what to eat, outdoor air, exercise and numerous similar subjects are constantly arising to make the individual wonder if he is following the proper procedure. The exhibit deals with this problem in a variety of ways. There are several "attention catchers," with push buttons for the visitor to work which answer certain questions. Posters in color present very brief statements, illustrated by drawings, so that "he who runs may read." Exposition files contain some one hundred and fifty commonly-asked questions about health, with the answers, making it possible for persons who desire additional information to obtain it quickly and easily.

MECHANICAL NOSTRUMS

American Medical Association, Chicago, Illinois

Regardless of the advances made in science, some inspired charlatan is always ready to adapt a new discovery to personal exploitation for his own financial gain. This has been true especially of electricity, radium and ultraviolet light. The exhibit contains a variety of worthless pieces of equipment, some of which have been sold for as much as a thousand dollars a piece. Some are simply foolish—others are vicious. In addition to the mechanical pieces actually displayed, an exposition file contains information on many additional devices falling into the same category.

OBJECTIONABLE COSMETICS

American Medical Association, Chicago, Illinois

The great bulk of cosmetics on the market is safe and harmless, yet there are some that are quite objectionable. They fall into three groups,—some of the skin bleaches and freckle removers, most of the hair dyes sold under proprietary names, and certain depilatories. In addition there are a considerable num-

ber of cosmetics which are harmless of themselves but which are objectionable because of the excessive claims made for them, or the high price charged for a little of nothing. The purpose of the exhibit is not to discourage the use of cosmetics, but to make cosmetics safe to use through better legislation. The exhibit presents an array of posters dealing with some of the more vicious of the preparations that have caused dermatitis and blindness. Exposition files contain information on numerous other cosmetics.

POSTURE

American Medical Association, Chicago, Illinois

Causes contributing to poor posture are ignorance of the principles of good posture, malnutrition, weak musculature, foot strain, ill-fitting clothes and shoes, poor seating and the wrong mental attitude. Too often the directions for the correction of poor posture are insufficient. "Draw in your stomach" may be accomplished without affecting the pelvis; "throw out your chest" may result in a hollow back; "throw back your shoulders" may produce a strained position. A mechanical dummy in the exhibit demonstrates how the weight should be transferred from the heels towards the front portion of the foot, how the pelvis should be rolled upward and backward, and how the chest should be raised with the head up. The exhibit also contains a series of posters showing good and bad posture for boys and girls of different types and builds. Exposition files contain additional information for persons interested in further details.

PATENT MEDICINE TESTIMONIALS

American Medical Association, Chicago, Illinois

Testimonials are the sheet anchor of medical advertising. Because of their supposed appeal to experience, their commercial value is large; because the testimony of those who gave them is not competent, their scientific value is nil. Some testimonials are purchased outright, others are faked, while many of them are given in good faith by persons who think they have been helped by some "patented" preparation, but all too often are ignorant of the facts. The exhibit contains copies of a number of such testimonials together with death notices and death certificates of the individuals who wrote the testimonials and who died of the very disease which the testimonials said was cured. Some of the advertisements continued to be published for many months after such persons were dead.

HIPPOCRATES

American Medical Association, Chicago, Illinois

Hippocrates was born, according to available records, about the year 460 B.C., of a family that traced its ancestry to Aesculapius, the legendary saint of medicine. To the Hippocratic textbooks, which were perhaps collections of writings rather than the original contributions of one man, is credited the establishment of an epoch in medical history that replaced theoretical reasoning and appeals to spirits with actual inspection and study of the patient and with treatment on the basis of knowledge. The use of the mind and senses in diagnosis, the mutual respect between physician and patient, his sound common sense, and the establishment of the Hippocratic oath are reasons for conferring on this man the title of "father of medicine." A plaster plaque in bas-relief shows Hippocrates together with the oath which he required of all his students.

The Oath of Hippocrates

I swear by Apollo, the physician, and Aesculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this oath and stipulation: to reckon him who taught me this art equally dear to me as my parents, to share my substance with him and relieve his necessities if required; to regard his offspring as on the same footing with my own brothers, and to teach them this art if they should wish to learn it, without fee or stipulation, and that by precept, lecture and every other mode of instruction, I will impart a knowledge of the art to my own sons and to those of my teachers, and to disciples bound by a stipulation and oath, according to the law of medicine, but to none others.

I will follow that method of treatment which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to anyone if asked, nor suggest any such counsel; furthermore, I will not give to a woman an instrument to produce abortion.

With purity and with holiness I will pass my life and practice my art. I will not cut a person who is suffering with a stone, but will leave this to be done by practitioners of this work. Into whatever houses I enter I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption; and further from the seduction of females or males, bond or free.

Whatever, in connection with my professional practice, or not in connection with it, I may see or hear in the lives of men which ought not to be spoken abroad, I will not divulge, as reckoning that all such should be kept secret.

While I continue to keep this oath unviolated, may it be granted to me to enjoy life and the practice of the art, respected by all men at all times, but should I trespass and violate this oath, may the reverse be my lot.

■ Booths 57-59

PHARMACY

Wisconsin Pharmaceutical Association, Milwaukee

The exhibit shows a modern pharmacy divided into three main parts: (1) library and reception room, (2) prescription compounding unit, (3) laboratory. The pharmaceutical exhibit will have three divisions, each with a pictorial and word background. The foreground will have unusual demonstrations. The library and reception room will have the following plaques: (1) Education—University of Wisconsin, (2) Regulation—Wisconsin State Board of Pharmacy, (3) Legislation—Wisconsin Pharmaceutical Association and Milwaukee County Pharmacists Association. Besides the above, rare books on pharmacy will be on exhibition such as a complete set of Pharmacopeias and National Formularies. Books and pamphlets on pharmaceutical education, regulation and legislation and United States Dispensatories, Practice of Pharmacy, Pharmaceutical Chemistry and other necessary books will be shown. The second part, or "Prescription Compounding Unit" will have background plaques as follows: Vegetable—animal—mineral and chemical drugs and an enlarged prescription blank. The foreground will be as follows: A complete prescription compounding desk set unit with a pharmacist demonstrating the making of pills, capsules, ointments, suppositories, emulsions and other pharmaceutical preparations. There will be case or open displays of articles shown in the background plaques. The third part of the exhibit will consist of the following background plaques: Biological-nutritional and glandular. These will be supplemented by a display of the following in the foreground: Test animals, potted pharmaceutical plants, demonstrations of various pharmaceutical and chemical processes and reactions. The following will also be demonstrated: Percolation, extraction, infusion, distillation, test solutions, and volumetric apparatus. Operations and demonstrations will adhere to practices as outlined in the United States Pharmacopeia and National Formulary. Pharmacists will be in attendance to explain operations of interest to the public.

■ Booth 60

MEDICAL EDUCATION

Association of American Medical Colleges, Chicago, Illinois

For many years, the Association has made studies bearing on various phases of medical education in order to secure information which hitherto has not been available. For example, how many persons seek admission to medical schools; how many are accepted; how many are refused and the reasons for refusal; how many matriculate; how many fail of promotion each year and why; how many of those who begin the study of medicine eventually graduate. Comparable studies on scholarship in the arts college and in the medical college. Each year a report is sent to every arts college on the accomplishment of its students in the medical college. Each year about 600 arts colleges are represented in medical colleges. The aptitude test conducted by the Association is taken each year by about 11,000 students in the arts colleges in the United States, its possessions and in Canada. Accomplishment in the medical college is studied on the basis of the aptitude test rating in order to furnish an aid in the selection of prospective students by medical colleges. The Journal published by the Association is devoted entirely to medical education and teaching. It is the only publication of its kind in the world. It is sent to nearly every country in the world. It is the property of the Association and the 15,000 teachers in the medical colleges in the United States and 800 in Canadian medical schools. These and other studies made by the Association are published in its Journal.

■ Booth 60a

OCCUPATIONAL THERAPY

The Junior League Curative Workshop, Milwaukee

This Workshop was established in 1919 and is equipped to assist the physicians of Milwaukee who need physical or occupational therapy in treating their patients who have orthopedic conditions or nerve injuries. It is a nonprofit organization, treating industrial accident and private patients at cost. The treat-

ment of indigent patients is made possible by the Milwaukee Community Fund. Three hundred and fifty-two patients who were unable to pay toward the cost of treatment were cared for. The Workshop also provides occupational therapy in the home for any type of physical or mental condition which can be helped through this form of treatment. The Workshop maintains a posture clinic for children as well as providing this opportunity for adults. The patient is trained in exercises which strengthen the weak postural muscles. Corrective gymnastics and relaxation play an important part in the posture program. No patient is ever given treatment without a physician's prescription, and in the past year over 170 physicians have referred patients to the Workshop. Patients must return to the physician as frequently as he desires and are discharged by him. The services and facilities of the Curative Workshop are depicted in the booth.

FOODS

Milwaukee Downer College

Exhibit consists of charts. Each chart represents a specific number of units of protein or vitamin A, as the case may be, with lists of important foods and the weight and measure of each food, giving the specified number of units.

■ Booth 61

THE DOCTOR

The Petrolagar Laboratories, Inc., Chicago, Illinois

"The Doctor" is a life-sized three dimensional interpretation of Sir Luke Fildes' famous painting rendered in a new art medium known as "sculpticolor." This fascinating exhibit has realism that surpasses anything ever done on canvas. By combining two arts, painting and sculpturing, it yields a striking similarity to an actual scene. "The Doctor" portrays a historic event of the nineteenth century, when Sir

THE DOCTOR

Visited by over 4,000,000 people, this sculpticolor portrays the visit of the personal physician to Queen Victoria to the bedside of a peasant child.

James Clark as personal physician to Queen Victoria kept an all-night vigil at the bedside of a humble peasant child. As an observer stands before this realistic exhibit he feels that he too is a part of the setting. It brings to the mind of everyone the faithful services rendered by his family physician in time of need. This masterpiece has been visited by over four million people since it was first created four years ago. Some idea of the magnitude of "The Doctor" exhibit can be obtained from its dimensions. After its seventy-two parts have been assembled the exhibit measures seventeen feet in width, eleven feet in height, and nine feet in depth. It weighs over six thousand pounds and must be transported in specially constructed shipping cases. In transit the exhibit occupies an entire railway express car. It required seven months continuous work by one sculptor and an artist to complete the exhibit. Its value is placed in excess of $150,000.

■ Booth 62

MENTAL HYGIENE

The Wisconsin State Board of Control and the Wisconsin Society for Mental Hygiene

The Board of Control exhibit will show graphically the system by which it operates with regard to the care of the wards of the State,—whether insane, criminal, or tuberculous. It will also indicate some of the crying needs of these institutions.

The Wisconsin Mental Hygiene Society will indicate graphically unacceptable and acceptable behavior in children and adults. It will indicate the course of examination employed with regard to cases considered in this field and by means of motion pictures indicate the four types of problems which most commonly appear for help in the mental hygiene clinics.

■ Booths 63-67

ORGANIZED MEDICINE IN MILWAUKEE

The Medical Society of Milwaukee County

The purpose of the Society's exhibit is to demonstrate, by use of descriptive panels, the activities of the organized medical profession of Milwaukee County directly affecting the public health. The center panel, approximately eight feet long and six feet high, shows the operation of the Physicians' Service Bureau. Two smaller panels on each side will depict the operation and usefulness of Medical Service, the Society's new budgeting unit, the Bureau of Registered Blood Donors, the Speakers' Bureau and the First-Aid Program.

HOBBIES AND HEALTH

The Medical Society of Milwaukee County and the Woman's Auxiliary

The first Hobby Show sponsored by The Medical Society of Milwaukee County and its Woman's Auxiliary at the annual meeting of the State Medical Society held in Milwaukee in 1935 attracted national attention. Only physicians and their wives, however, were admitted to this exhibit. This year the Hobby Show is open to the public. People who see it will be impressed with the varied interests of the medical profession and realize no matter how occupied the physician may be with his regular duties he finds time to devote to outside activities. The exhibit demonstrates also, that the doctor follows his own advice in the matter of seeking wholesome and varied interests knowing that it contributes to sound mental health. At this year's Show there is on display a variety of hobbies to which physicians of Milwaukee County have given much of their time. Among these are stamps, inventions, paintings, books, etchings, photography, glassware, water colors, woodworking, coins, sketches, pictorial photography, and amateur radio communication.

■ Booths 68-70

THE TEETH AND MOUTH IN HEALTH AND DISEASE

Wisconsin State Dental Society, Madison

The exhibit of the Wisconsin State Dental Society includes an electrically operated mechanical exhibit showing the progress of decay from an initial attack on enamel to the formation of an abscess. Also two illuminated pictures; a boy with a good profile and a boy with a poor profile showing the irregular broken down teeth illustrating the result of lack of dental care. Sixteen 12-inch plaster models, colored, showing the value of x-ray in discovering cavities between the teeth and other hidden decay; the progress of pyorrhea; discovering the presence of root fragments; the presence of impacted teeth; the changes

that often occur after the extraction of teeth. Also a series of dental health charts showing the deciduous or so-called "baby teeth," the permanent teeth, the effect of diet on teeth, dental care, mouth hygiene, preventing decay of deciduous and permanent teeth. Also dental health pictures which emphasize the four dental health rules: proper food, exercise, cleanliness and regular dental attention. The Council of Dental Therapeutics is cooperating with the Wisconsin State Dental Society in placing an exhibit showing the nostrums and quackery in dental products advertised to the public. The Mayo Clinic is cooperating with the Wisconsin State Dental Society in placing an exhibit, showing malignant diseases of the mouth and accessory structures, which includes a series of pictures illustrating the diseases and treatment of the lips and mouth; also two illuminated view boxes containing models and photographs.

■ Booths 71, 72

TOOTH-RING ANALYSIS

University of Illinois, Chicago, Illinois

Exhibit of photomicrographs (highly magnified pictures of material examined under the microscope), charts and models which demonstrate the use of the incremental rings in the teeth for the analysis of biologic processes and events; (1) the neonatal ring in human deciduous teeth which records the biologic changes experienced by the newborn infant; (2) the ring patterns in the incisor of the rat with a revolving model comparing the action of this tooth of continuous growth to the drum of a kymograph, which records the alterations, in calcium metabolism accurately and promptly; (3) the ring pattern of the human incisor and its incremental mode of growth; (4) the 16 micron calcification rhythm in teeth; (5) the growth rhythm in teeth; (6) the experimental evidence which supports the concept that the growing tooth is a very delicate recorder of biologic processes.

■ Booths 73-75

THE STORY OF CANCER

Wisconsin Division, Women's Field Army, American Society for the Control of Cancer, Museum of Science and Industry, Chicago, Illinois

This exhibit will seek to tell something of the nature, occurrence, prevention, and history of cancer. In sets of four illuminated boxes each, the above phases of the cancer problem will be presented. Some phases of heredity as applied to cancer, how cancer spreads, its place among the leading causes of death, how certain types can be prevented, the danger of using quack and commercial remedies for treatment, reference to past and present investigators in the cancer field, and the hope attached to early diagnosis and treatment, will be among those questions presented in these boxes. The central panel will contain wax models of various types of cancer usually seen by the public and which offer the greatest hope for a cure when treated early. The charts will be educational in character, each one containing a sentence statement about cancer control. Other charts will be statistical in character, giving a picture of the cancer problem in Wisconsin. Activities of the Women's Field Army will also be portrayed, both from the national and state standpoint. An automatic illuminated projector will be used to bring the salient facts about control of cancer to the notice of visitors. Educational literature will be available to those visiting the exhibit, and qualified persons will be in attendance to answer questions.

INVITE YOUR FRIENDS

The Hall of Health represents a million dollar exhibit. It is a remarkable achievement in the field of health education

Tell your friends—Invite them to attend

No admission charge

'Amytal'

(ISO-AMYL ETHYL BARBITURIC ACID, LILLY)

● Reserves of energy which are normally present in the body in health may be quickly dissipated by illness or even by insomnia. Just as an army unit must have sleep if a campaign is to proceed successfully, so the sick individual must be assured the sleep he needs for restoration of nervous, nutritional, and other reserves.

Restful and refreshing sleep may be induced by Tablets 'Amytal.' A single 1 1/2-grain tablet will produce the desired somnifacient effect in the average adult.

Tablets 'Amytal' are supplied in 1/8-grain, 1/4-grain, 3/4-grain, and 1 1/2-grain sizes in bottles of 40 and 500 tablets.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Beware of Swindlers

By FRANK J. CLANCY, M. D.
Director, Bureau of Investigation, American Medical Association
Chicago, Illinois

HARDLY a week passes that the Bureau of Investigation of the American Medical Association does not receive a letter of distress from some physician, detailing his experience with a fraudulent instrument repair man, subscription agent, clothing or shoe salesman, impostor impersonating a physician, health insurance faker, fraudulent insurance salesman, forger or counterfeiter. Few of the schemes are new or novel. The same old gags go on with monotonous regularity, in spite of warnings from Better Business Bureaus, state medical journals and The Journal of the American Medical Association.

The story usually goes like this:

"On blank date of this year, I was called on by a man giving his name as 'Joe Doaks,' who stated that he was a salesman for the So-and-So-Products Chemical Company, located at _____. He had a display of instruments, rubber gloves, etc. I noted that he had taken orders from several physicians in such-and-thus cities. He offered 10 per cent discount for cash. I gave him an order and foolishly a check for same, amounting to $_____. I have never received the order. I have written two letters to the So-and-So Company, but have received no reply. I received the cancelled check, showing it was cashed . . . I would appreciate it very much if you can give me the address of the company . . . and further advice . . . I now realize that it was a foolish move on my part . . ."

In this particular case The Journal had previously published an article on the swindle, giving the swindler's name and the name of the nonexistent company as reported by a physician who had been a victim.

A recent variation of the fraudulent book salesman swindle was reported to the Bureau of Investigation:

"This man is taking subscriptions to Esquire and Vogue Magazines for $5 a year and offering as a premium one of three medical books. He uses a large sales slip bearing the name of the Atlas Sales Company, 1020 Walnut Street, Philadelphia. My check made out to this company was cashed at a local garage. A letter addressed to the company was returned unclaimed.

"This man uses the name of W. D. Kitchins. He is about 45 years of age, 5 feet 8 inches tall, weight about 130 pounds, and is a very clever salesman. No doubt other doctors nearby have fallen for his racket. He should be turned over to the authorities if accosted."

Another variation of the same scheme is as follows:

"A man representing himself to be Robert Warren of Warren Bros. Surgical Instruments and Repair, 3521 Grand Avenue, St. Louis, Mo., called at our place May 8. He carried away some scissors and collected for the repair. He collected a small bill on some merchandise that was to come separately and took an order for a few other items.

"When these things did not come, we started to investigate, and we found there was no such concern in St. Louis. This man was about 50 years old, rather prominent features, and would weigh around 125 pounds. He claimed to be in the employ of Kny-Sherrer for a number of years, but went into business with his brother some time ago, in St. Louis. He is thoroughly familiar with the instrument business and has a wide, intimate knowledge of the eye, ear, nose and throat men, especially east of the Mississippi river. If you have any idea as to the identity of this man and can suggest how to locate him, we would appreciate it very much."

Physicians, as a group, are no more gullible than other individuals. Their weakness lies in the fact that they are too busy during office hours to give sufficient consid-

eration to problems other than those of their practice. Stopping a few moments between patients to half-listen to a swindler's story, and hurriedly paying in advance in order to get back to a waiting patient, make them made-to-order victims for the swindler. Practically all swindlers depend on the chance that the victim will not take the time or trouble to investigate before turning over his cash.

Physicians should be suspicious of unknown colleagues from distant cities who are temporarily out of cash. Such individuals should be looked up in the Directory of the American Medical Association. In major cities the public libraries and principal hotels usually have out-of-town telephone books. Before you cash that check, it would be well to call your principal hotel and ask the operator to look up in her out-of-town phone directory the address and telephone number of the physician in distress. If the swindler is using the name of an established physician, ask him for his telephone number and see if it checks. *Bona fide* physicians with a bank account should know how to get a check cashed through commercial channels. Don't be taken in by flattery or imposing credentials.

If you have instruments to be repaired, let the local supply house or instrument man do the job. He is spending his money in your community and no doubt needs the work. If your city is too small to support an instrument house or a medical book store, write direct to the instrument house or publishing company, as such companies will usually send goods C.O.D. or on credit. But if you insist on purchasing instruments and books and insurance from itinerants, have them sent C.O.D., subject to your approval.

1. **Don't cash checks for strangers.**
2. **Don't cash checks for unknown physicians.**
3. **Don't buy books, instruments or insurance from itinerant peddlers.**
4. **When in doubt, call your Better Business Bureau.**
5. **If uncertain, telegraph the Bureau of Investigation of the American Medical Association, 535 North Dearborn Street, Chicago, Ill.**

INTERNATIONAL MEDICAL ASSEMBLY

Interstate Postgraduate Medical Association of North America

Public Auditorium, St. Louis, Mo. OCTOBER 18-19-20-21-22, 1937

Pre-assembly Clinics, October 16; Post-assembly Clinics, October 23, St. Louis Hospitals

President, Dr. John F. Erdmann; President-Elect, Dr. Elliott P. Joslin
Chairman, Program Committee, Dr. George Crile; Managing-Director, Dr. William B. Peck
Secretary, Dr. Tom B. Throckmorton; Director of Exhibits, Dr. Arthur G. Sullivan
Treasurer and Director Foundation Fund, Dr. Henry G. Langworthy
Chairman, St. Louis Committees, Dr. Elsworth Smith

ALL MEDICAL MEN AND WOMEN IN GOOD STANDING CORDIALLY INVITED

Intensive Clinical and Didactic Program by World Authorities

The following is a major list of members of the profession who will take part on the program:

Irvin Abell, Louisville, Ky.
Alfred W. Adson, Rochester, Minn.
Walter C. Alvarez, Rochester, Minn.
Charles R. Austrian, Baltimore, Md.
W. Wayne Babcock, Philadelphia, Pa.
Fred W. Bailey, St. Louis, Mo.
Donald C. Balfour, Rochester, Minn.
David P. Barr, St. Louis, Mo.
James H. Black, Dallas, Texas
Cyrus E. Burford, St. Louis, Mo.
Richard B. Cattell, Boston, Mass.
John R. Caulk, St. Louis, Mo.
Russell L. Cecil, New York, N. Y.
Frederick P. Coller, Ann Arbor, Mich.
Leon H. Cornwall, New York, N. Y.
William T. Coughlin, St. Louis, Mo.
W. McK. Craig, Rochester, Minn.
George W. Crile, Cleveland, Ohio
Bronson Crothers, Boston, Mass.
Elliott C. Cutler, Boston, Mass.
Walter E. Dandy, Baltimore, Md.
Loyal Davis, Chicago, Ill.
Claude F. Dixon, Rochester, Minn.
Wells P. Eagleton, Newark, N. J.
Nicholson J. Eastman, Baltimore, Md.
Joseph Eller, New York, N. Y.
Charles A. Elliott, Chicago, Ill.
John F. Erdmann, New York, N. Y.
Reginald Fitz, Boston, Mass.
John R. Fraser, Montreal, Canada
Evarts A. Graham, St. Louis, Mo.
Russell L. Haden, Cleveland, Ohio
William D. Haggard, Nashville, Tenn.
Seale Harris, Birmingham, Ala.
Tinsley R. Harrison, Nashville, Tenn.
Charles G. Heyd, New York, N. Y.
J. William Hinton, New York, N. Y.
Frederick M. Hodges, Richmond, Va.
Thomas E. Jones, Cleveland, Ohio
Elliot P. Joslin, Boston, Mass.
Frederick J. Kalteyer, Philadelphia, Pa.
William J. Kerr, San Francisco, Calif.
Ralph A. Kinsella, St. Louis, Mo.
Marion L. Klinefelter, St. Louis, Mo.
Herman L. Kretschmer, Chicago, Ill.
Frank H. Lahey, Boston, Mass.
Robert L. Levy, New York, N. Y.
Dean Lewis, Baltimore, Md.
William E. Lower, Cleveland, Ohio
Charles H. Mayo, Rochester, Minn.
William J. Mayo, Rochester, Minn.
Jonathon C. Meakins, Montreal, Canada
John J. Moorhead, New York, N. Y.
Emil Novak, Baltimore, Md.
Alton Ochsner, New Orleans, La.
Eric Oldberg, Chicago, Ill.
Dallas B. Phemister, Chicago, Ill.
Fred W. Rankin, Lexington, Ky.
Leonard G. Rowntree, Philadelphia, Pa.
Robert D. Rudolf, Toronto, Canada
Otto H. Schwarz, St. Louis, Mo.
Roy W. Scott, Cleveland, Ohio
Alan deForest Smith, New York, N. Y.
Charles Hendee Smith, New York, N. Y.
Fred M. Smith, Iowa City, Iowa
Horace W. Soper, St. Louis, Mo.
Merrill C. Sosman, Boston, Mass.
Charles R. Stockard, New York, N. Y.
Cyrus C. Sturgis, Ann Arbor, Mich.
Harold G. Tobey, Boston, Mass.
John A. Toomey, Cleveland, Ohio
Gabriel Tucker, Philadelphia, Pa.
Maurice B. Visscher, Minneapolis, Minn.
William H. Vogt, St. Louis, Mo.
Waltman Walters, Rochester, Minn.
Philip D. Wilson, New York, N. Y.
Alan C. Woods, Baltimore, Md.
Hugh H. Young, Baltimore, Md.

FOREIGN ACCEPTANCES TO DATE:

Dr. Thomas C. Hunt, London, England.
Mr. W. Hugh Cowie Romanis, F. R. C. S., London, England.
Mr. Wilson H. Hey, F. R. C. S., Manchester, England.
Professor Nikolaj Boordenko, University Surgical Clinic, Moscow, USSR.

HOTEL HEADQUARTERS
Jefferson and Statler Hotels—HOTEL RESERVATIONS—**Hotel Committee, Dr. Millard F. Arbuckle, Ch.**
537 N. Grand Blvd., St. Louis, Mo.

Final program mailed to all members of the medical profession in good standing, September 1.
If you do not receive one, write the Managing-Director.
Comprehensive Scientific and Technical Exhibit. Special Entertainment for the Ladies.

The Journal Bookshelf

BOOKS RECEIVED FOR REVIEW

The Principles and Practice of Clinical Psychiatry. By Morris Braude, M. D., associate clinical professor of psychiatry, Rush Medical College, The University of Chicago. Philadelphia: P. Blakiston's Son & Co., Inc., 1937.

Obstetric and Gynecologic Nursing. By F. H. Falls, M. D., professor of obstetrics and gynecology, University of Illinois, College of Medicine; and Jane R. McLaughlin, R. N., supervisor of the department of obstetrics and gynecology, Research and Educational Hospital, University of Illinois, College of Medicine. Price $3. St. Louis: The C. V. Mosby Company, 1937.

Health Education of the Public. By W. W. Bauer, M. D., director, Bureau of Health and Public Instruction, American Medical Association; associate editor of Hygeia, The Health Magazine; and T. G. Hull, director, scientific exhibit, American Medical Association. Cloth $2. Philadelphia: W. B. Saunders Company, 1937.

An Introduction to Dermatology. By R. L. Sutton, M. D., professor of dermatology, University of Kansas School of Medicine, and R. L. Sutton, Jr., M. D., instructor in dermatology, University of Kansas School of Medicine. Third edition. Price $5. St. Louis: The C. V. Mosby Company, 1937.

Manual of the Diseases of the Eye. By Charles H. May, M. D., consulting ophthalmologist to Bellevue, Mt. Sinai and French Hospitals, New York. Fifteenth edition, revised. Price $4. Baltimore: William Wood and Company, 1937.

Clinical Urinalysis and Its Interpretation. By Robert A. Kilduffe, M. D., director of laboratories, Atlantic City Hospital; pathologist, Atlantic County Hospital for Tuberculous Diseases. Philadelphia: F. A. Davis Company, 1937.

Pathology. By E. B. Krumbhaar, M. D., professor of pathology, University of Pennsylvania School of Medicine. Price $2. New York: Paul B. Hoeber, Inc.

Injection Treatment of Hernia. By C. O. Rice, M. D., instructor of surgery, University of Minnesota School of Medicine. With the assistance and cooperation of Hamlin Mattson, M. D., Philadelphia: F. A. Davis Company, 1937.

Rose & Carless Manual of Surgery. American (Fifteenth) Edition. Edited by W. T. Coughlin, M. D., professor of surgery and director of the department of surgery, St. Louis University School of Medicine, St. Louis. From the Fifteenth English Edition by Cecil P. Wakeley, D. Sc., senior surgeon, King's College Hospital, London; and John B. Hunter, M. C., surgeon, King's College Hospital, London. Baltimore: William Wood and Company, 1937.

Treatment by Diet. By Clifford J. Barborka, M. D., department of medicine, Northwestern University Medical School, Chicago. Third edition, revised. Philadelphia: J. B. Lippincott Company, 1937.

Dextrose Therapy in Everyday Practice. A Survey of the Literature, 1900–1936 on the Experimental and Clinical Studies Applicable to Medicine and Surgery. By E. Martin, Sc. D., New York. Price $3. New York: Paul B. Hoeber, Inc., 1937.

Supplements to the Pharmacopoeia of the United States. Eleventh Decennial Revision. By authority of the United States Pharmacopoeial Convention. Agent: Mack Printing Company, Easton, Pa.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

The International Medical Annual. Edited by H. L. Tidy, M. D., and A. R. Short, M. D., Baltimore: William Wood and Company.

The International Medical Annual is an English review of the articles considered outstanding in the entire fields of medicine and surgery during the past year. It differs from the American year books of similar type, in that all of the many medical and surgical specialties are combined in the one volume. The editors remark that while some years become famous in history for a single great discovery, there has been no outstanding achievement in the last twelve months. The general character of the Medical Annual remains unchanged and those who have enjoyed its brief reviews in the past will find the 1937 volume of the usual interest. M.L.C.

The Mentally Ill in America. A history of their care and treatment from colonial times. By Albert Deutsch. With an introduction by William A. White, M.D., late superintendent, St. Elizabeth's Hospital, Washington, D. C., professor of psychiatry, George Washington University. Price $3. New York: Doubleday, Doran & Company, Inc., 1937.

This volume is of extreme interest to anyone historically-minded. The chapter especially on Dorothea Dix and the one dealing with the question of restraints are especially to be commended. The volume is profusely illustrated with interesting pictures, and it should be in the library of anyone interested in the origin of psychiatry; it is a contribution of the advance of mental medicine. A. C. W.

Research, Constant Research

continues to improve the quality of Mead's Brewers Yeast★ in the following respects, *without increased cost to the patient:*

1. Vitamin B potency raised to not less than 25 International units per gram.
2. Bottles now packed in light-proof cartons, for better protection.
3. Improved bacteriologic control in harvesting and packing.
4. **And NOW, since August 1, 1936, all bottles are packed in vacuum. This practically eliminates oxidation. Mead's Yeast stays fresh longer, as you can tell by its improved odor and flavor!**

★A dietary accessory for normal persons, for the prevention and treatment of conditions characterized by partial or complete deficiencies of vitamins B_1 and G, as in beriberi, pernicious vomiting of pregnancy, anorexia of dietary origin, alcoholic polyneuritis, pellagra.

•

Mead's Brewers Yeast Tablets in bottles of 250 and 1,000. Mead's Brewers Yeast Powder in 6 oz. bottles. Not advertised to the public. Samples to physicians, on request.

•

MEAD JOHNSON & COMPANY, Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

Surgical Treatment. A practical treatise on the therapy of surgical diseases. By James Peter Warbasse, M. D., and Calvin Mason Smyth, Jr., M. D. Three volumes. Second edition, revised and reset. Cloth $35 set. Philadelphia: W. B. Saunders Company.

The second edition of this work has been revised and brought up-to-date and co-edited by Doctor Calvin Mason Smyth, of the University of Pennsylvania Graduate School of Medicine. The three volumes represent a work covering the entire field of surgical treatment by the two authors. Some of the chapters in this edition have been expanded considerably or revised. This is noted particularly in the sections dealing with electricity and radiation, thyroid, anesthesia and cranial injuries. The three volumes contain 2,436 illustrations which are very accurate and add greatly to the value of the work.

Although space does not permit a summary of the individual outstanding sections, it is sufficient to say that the field of surgical treatment has been very completely covered, and that these volumes would be a valuable addition to the general surgeon's reference library. C. R. P.

Synopsis of Digestive Diseases. By John L. Kantor, M. D., associate in medicine, Columbia University; gastroenterologist and associate roentgenologist, Montefiore Hospital for Chronic Diseases, New York. Price $3.50. St. Louis: The C. V. Mosby Company, 1937.

This book of almost three hundred pages, written by a well-recognized authority in the field of gastroenterology is very compact but inclusive. The subject matter is divided into four parts. The first part deals with classification, diagnostic measures, the neuroses, allergy, and other matters. It is of interet that no mention is made of the gastroscope in the discussion of diagnostic measures though the importance of this instrument, a highly specialized one, is being convincingly established by Schindler and his pupils. The second part deals with diseases of all of the digestive organs wherein etiology, pathology, prognosis, diagnosis, and treatment of each subject are discussed. The third part is concerned with diseases due to intestinal parasites and the fourth with digestive symptoms in extra-digestive diseases.

Practically all of the disease of the gastro-intestinal tract and its appendages are discussed with clarity and conciseness. There is little that one can disagree with though the comparative authority with which the author speaks in discussing diseases of the gastro-intestinal tract directly as compared to a weak discussion of a hematological condition, Plummer-Vinson's syndrome, is noteworthy.

This work is, in the reviewer's opinion, well-organized and well-prepared. The illustrations are good. The lack of bibliography may be criticized by some. The physician who desires synoptic material in the field of gastro-enterology will find no better source. O. O. M.

NOW PATIENTS CAN

"Drink" THESE

IMPORTANT FOOD ESSENTIALS

DIETETICALLY, Cocomalt, being *fortified* with Calcium, Phosphorus, Iron and Vitamin D, is a "protective food drink" that more and more physicians are using for expectant and nursing mothers, for run-down men and women, for under-nourished children.

Each ounce-serving of Cocomalt provides .15 gram of Calcium, .16 gram of Phosphorus. And, to aid in the utilization of these food minerals, each ounce of Cocomalt also contains 81 U.S.P. Units of Vitamin D, derived from natural oils and biologically tested for potency.

Each ounce-serving of Cocomalt is enriched with enough Iron to supply ⅓ of the daily nutritional requirements of the normal patient...5 milligrams of effective Iron biologically tested for assimilation.

Thus, with Cocomalt, patients can truly "drink" important food essentials, lacking or deficient in the average diet. And few of them, young or old, can resist the creamy delicious flavor of Cocomalt.

Cocomalt can be taken Cold, or Hot, as you prescribe. And it is easy to obtain at drug and grocery stores in ½-lb. and 1-lb. purity-sealed cans. Also in the economical 5-lb. hospital size.

Cocomalt is the registered trade-mark of R. B. Davis Co., Hoboken, N. J.

	1 Ounce of Cocomalt adds	1 Glass of Milk (8 Liquid Ozs.) contains	Result! 1 Glass of Cocomalt and milk contains
†IRON	0.005 GRAM	*TRACE	0.005 GRAM
†VITAMIN D	81 U.S.P. UNITS	*SMALL AMOUNT; VARIABLE	81 U.S.P. UNITS
†CALCIUM	0.15 GRAM	0.24 GRAM	0.39 GRAM
†PHOSPHORUS	0.16 "	0.17 "	0.33 "
PROTEIN	4.00 GRAMS	7.92 GRAMS	11.92 GRAMS
FAT	1.25 "	8.53 "	9.78 "
CARBOHYDRATES	21.50 "	10.97 "	32.47 "

★*Normally Iron and Vitamin D are present in Milk in only very small and variable amounts.*

† *Cocomalt, the protective food drink,* is fortified *with these amounts of Calcium, Phosphorus, Iron and Vitamin D.*

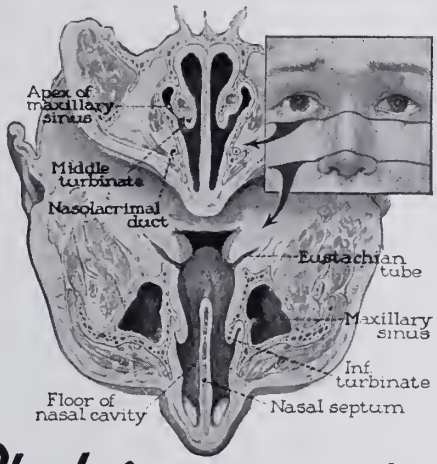
FREE...TO ALL DOCTORS

R. B. DAVIS CO.,
Hoboken, N. J. Dept. ZZ-9
Please send me, FREE,
a sample of Cocomalt.

*Doctor*_____

*Address*_____

*City*_____ *State*_____



For Children and Adults

NEO-SYNEPHRIN

HYDROCHLORIDE

(levo-meta-methylaminoethanolphenol hydrochloride)

EMULSION

Reduces Nasal Engorgement in Colds

Neo-Synephrin Emulsion may be used in children as well as adults for relief of nasal congestion and discharge in colds, rhinitis and sinusitis.

The instillation of a few drops into the nasal cavities will quickly and effectively constrict the engorged mucosa without sting or other untoward effects.

SOME OF THE ADVANTAGES OF NEO-SYNEPHRIN EMULSION ARE:

1. No sting
2. More sustained action than epinephrine or ephedrine
3. Less toxic in therapeutic dosage than epinephrine or ephedrine
4. So stable that it may be sterilized by boiling
5. In the doses recommended Neo-Synephrin usually does not produce nervousness or insomnia.

DOSAGE FORMS:

NEO-SYNEPHRIN HYDROCHLORIDE EMULSION, ¼%—(1-oz. bottle with dropper)

NEO-SYNEPHRIN HYDROCHLORIDE SOLUTION, ¼% for dropper or spray, 1% for resistant cases (1-oz. bottle)

NEO-SYNEPHRIN HYDROCHLORIDE JELLY, ½%—(in collapsible tubes with applicator)

FREDERICK STEARNS & COMPANY

DETROIT NEW YORK KANSAS CITY SAN FRANCISCO
WINDSOR, CANADA SYDNEY, AUSTRALIA

New and Nonofficial Remedies, 1937. Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1937. Cloth. Price, $1.50. Pp. 557, LXIV. Chicago: American Medical Association, 1937.

The annual editions of this volume contain all that the busy physician needs to know concerning the newer preparations which he is daily importuned by the detail men of the pharmaceutical manufacturers to use. The remedies listed and described here have been examined and found acceptable by the Council on Pharmacy and Chemistry, the deliberative body charged by the American Medical Association with the performance of this service for the practitioner, who has not the time or means to make the determinations for himself.

Some new drugs have been added in the 1937 edition, the descriptions of which will be found in the groupings to which they belong. There are some noteworthy changes in classification. The various vasoconstrictors, benzedrine, ephedrine, epinephrine and neosynephrin, have been grouped together as phenylalkylamine derivatives under the heading "Epinephrine and Related Preparations." This terminology is in keeping with the Council's policy of avoiding therapeutically suggestive names. Another similar change is the abandonment of the classification "Medicinal Foods" and substitution of a chapter under the title "Vitamins and Vitamin Preparations for Therapeutic and Prophylactic Use" in the previous edition. The consideration of other classes of food preparations was long ago transferred to the Council on Foods. The chapter "Organs of Animals" which has heretofore included only endocrine preparations has been expanded by transfers to this heading of the chapters Liver and Stomach Preparations, and Insulin.

The book contains general articles, descriptive of the classification under which the various drugs are listed. According to the preface, more or less thorough-going revisions have been made of the articles: Arsenic Compounds; Compounds Containing Trivalent Arsenic; Compounds Containing Pentavalent Arsenic; Bismuth Compounds; Epinephrine and Related Preparations; Iodine Compounds; Iodine Compounds for Systemic Use; Mercury and Mercury Compounds; Pituitary Gland; Salicylic Acid Compounds; Serums and Vaccines; Antipneumococcic Serums; Silver Preparations; and Tannic Acid Derivatives.

Annual Reprints of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1936, with the Comments That Have Appeared in the Journal. Cloth. Price, $1. Pp. 104. Chicago: American Medical Association.

This book is essentially a record of the negative actions of that distinguished body, the Council on Pharmacy and Chemistry of the American Medical Association; that is, it sets forth the findings concerning medicinal preparations which the Council has voted to be unacceptable for recognition and use by the medical profession. Many of the reports record out-right rejection or the rescinding of previous acceptances; others report in a preliminary way on products which appear to have promise but are not yet sufficiently tested or controlled to be ready for general use by the profession.

Among the reports on out-and-out unacceptable products are Amend's Solution and the "Igol" products, iodine preparations marketed under misleading or unacceptable claims, the latter under an uninformative proprietary name; Androstine–Ciba, claimed to be a testicular extract and found to be an irrational combination of inactive preparations, marketed with unwarranted and misleading claims; Gadoment, a preparation of cod liver oil in a wax base with zinc oxide, benzoin and phenol, proposed for use in the treatment of burns, cuts and minor skin irritations, found unacceptable as being an unoriginal product of insufficiently declared composition marketed under a coined proprietary name with unwarranted therapeutic claims, and indirectly advertised to the public; the "Carasyl" preparations which are essentially mixtures of psyllium flour, karaya gum and fig flour, marketed with unsubstantiated therapeutic claims under a proprietary name.

In 1934 the Council sponsored an exhaustive report on bacteriophage therapy which pointed out that in view of the present status of knowledge, no such preparations could be accepted for New and Nonofficial Remedies. In this volume of the collected Council reports the Council declares the "Phagoid" preparations, a line of bacteriophage products, definitely unacceptable because they are offered to the medical profession with unscientific, unwarranted claims, thus encouraging physicians to use in a routine way medicaments, the therapeutic value of which had not been established, and because the preparations conflicted in other ways with the rules of the Council.

This volume includes a preliminary report on Trichophytin and Oidiomycin,—trichophyton preparations marketed by Lederle Laboratories, Inc. This report is a sequel to the preliminary report on Trichophyton Extract issued in 1932, which postponed consideration to await development of further clinical evidence on Trichophyton therapy. Also included in this volume is a report on the unacceptability of two trichophyton preparations, Dermatomycol and Dermotricofitin, distributed in this country by Ernst Bischoff Co., Inc., under the stated proprietary names without sufficiently declared composition and with unwarranted therapeutic claims.

Other preliminary reports are Refined and Concentrated Antipneumococcic Serum Type VII–Lederle, Present Status of Tetrachlorethylene (since accepted for N. N. R.), Smallpox Vaccine (From Chick Chorio-Allantoic Membrane)–Lilly, and Use of Trichloroethylene for General Anesthesia.

One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in the *Saturday Evening Post* and other leading magazines.

Are two pairs of hands enough?

"Our baby will have every advantage."

Of course. But are affection, the determination to give children "every advantage," parental devotion, enough?

No, frankly they are not. The two pairs of hands of even the most conscientious parents are *not* enough to guide a child safely past the hazards that confront her. The little body hasn't yet built up a very sturdy resistance against many of the disease-producing germs we all encounter every day of our lives. She is susceptible to a whole group of illnesses that are visited almost solely upon children—the so-called "diseases of childhood." Her diet, her hours of rest, her health habits—all have an important bearing on her future.

That is why two pairs of parental hands are not enough. A *third parent* should be added to the family circle. That third parent is . . . the doctor.

To be sure, you are quick to get in touch with the doctor when your child is ill. But isn't the youngster really entitled to more than that? Shouldn't she see the family doctor often enough to regard him not as a stranger but as a friend? And shouldn't he know about her previous illnesses and be familiar with her little whims and how to get around them?

Then, too, the doctor should have the opportunity of giving her full benefit of modern *preventive* medicine—consultations about her growth and development, and protection against such diseases as smallpox, diphtheria, and whooping cough.

He, too, should have hold of her little hand, guiding her along the road of health that is every child's right.

COPYRIGHT 1937—PARKE, DAVIS & CO

PARKE, DAVIS & COMPANY
DETROIT, MICHIGAN
The World's Largest Makers of Pharmaceutical and Biological Products

Why We Do It. An elementary discussion of human conduct and related physiology. By E. C. Mason, M.D., professor of physiology, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma. Price $1.50. St. Louis: C. V. Mosby Company, 1937.

This book which purports to be an elementary discussion in human conduct and related physiology, appears to be, to the reviewer, of doubtful use. It is too elementary for the advanced student, and insufficiently organized for the novice. The sections on endocrine mechanisms and on the personality mechanism are of interest. The author appears, however to have a number of basic prejudices which appear elsewhere in the book—especially in the chapter of The Psychology of the Religious Fanatic. Altogether, the book is probably of interest, but it is felt that one would hesitate to place it in the hands of the average patient. A. C. W.

Personal Hygiene. By C. E. Turner, professor of biology and public health, Massachusetts Institute of Technology. Price $2.25. St. Louis: The C. V. Mosby Company, 1937.

This book of some 300 pages has been written to meet the demand for a text devoted to personal hygiene and suitable for the college-age group. It is, essentially, part I of the author's "Personal and Community Health" with the addition of a chapter on communicable diseases and immunity. Tuberculosis, venereal diseases, and the common cold have been discussed under the various systems rather than in a separate chapter.

Written in a brief, straightforward manner, this book is complete and readable. It can be recommended as a text of personal hygiene. R. C.

The Cardiac Glycosides. By Arthur Stoll, M. D. Basle, Switzerland. London: The Pharmaceutical Press, 1937.

This work comprises three lectures dealing with the isolation, identification and chemistry of numerous glycosides of digitalis, strophanthus and squill. The author points out there exists in nature an enormous diversity of natural substances which contain sugar in combination with substances belonging to other classes of chemical compounds, these sugar compounds being classified as "glycosides." Hydrolytic cleavage results in the separation of the two major constituents of the glycoside, the carbohydrate and the organic compound with which this was combined, the latter being termed the "aglucone." Although the major portion of the book is given over to a purely technical discussion of the chemistry of these glycosides, certain clinical applications are touched upon, particularly with reference to the stability of the pure crystalline forms, their accurate standardization and their peculiar suitability for intravenous injection. The book is well written and the material clearly presented. In general it will be of interest more to the chemist and pharmacologist than to the clinician. C. M. K.

Textbook of General Physiology. By T. Cunliffe Barnes, D. Sc., assistant professor of biology, Yale University. Philadelphia: P. Blakiston's Son & Co., Inc.

The organization of subject matter is excellent. The topics are well headed. Something of the nature of the subject matter is revealed by the following chapter headings: Diffusion, Osmosis and Electrolytes; Surface Action in Liquids; Colloids; Water; Physical and Chemical Models of Living Cells; The Nature of Living Matter; Permeability; Ameboid and Ciliary Movement; Muscular Contraction; Animal Behavior; Nervous Action; Bio-electric Potential; Temperature Characteristics; Biological Oxidations and Respiratory Pigments; General Physiology of the Heart and Chemical Regulation by Hormones. The subject matter is up-to-date and the 35 pages of bibliography provide ample source material for collateral reading. There are many illustrations. The discussion is very lucid although at times the interruptions caused by citation of the literature breaks the continuity. This text would be a very fine one for graduate students. R. C. H.

Physical Diagnosis. The art and technique of history taking and physical examination of the patient in health and in disease. By D. C. Sutton, M. D., associate professor of medicine, Northwestern University School of Medicine. Price $5. St. Louis: The C. V. Mosby Company, 1937.

This book is a moderate-sized text of moderate price by another midwestern author. In his introduction he suggests that the student contrast a pathological individual with a normal individual; that the student consider the difference in reaction and adjustment to environment of patients, even as did the old family doctor consider it; and that the sophomore student is relatively a neophyte in his approach and evaluation of signs and symptoms.

The historical section is brief but provides a description of the development of physical signs, and a few brief words concerning those who were responsible for the development.

The illustrations in the text are graphic frequently, but are occasionally unrelated to the associated text and some of them are not characteristic but simply unusual. The topographical sections are uninteresting. The use of x-ray pictures has been given a considerable increase over other texts and this seems to be a good modern idea, the films on tuberculosis, heart disease and the urograms are especially good. There is no assurance that the sophomore student has the ability to read x-ray films but these provide a few typical examples. The inability to use many colored films in a text is still a handicap since physical diagnosis depends considerably upon such an approach.

The text is unusually composed and may be a good contrast to lectures which a student would receive, but for reference the section headings as well as the text is not too smoothly correlated and seems somewhat discursive. W. H. O.

VALUABLE REFERENCE BOOK—*FREE*

. . . a complete array of facts never before assembled in one place

TABLE OF CONTEN

FOREWORD

SECTION I

PRESERVATION OF FOODS 9
- Causes of Food Spoilage 9
- Methods of Food Preservation 11
- History of Canning

HUMAN DIETARY REQUIREMENTS 14
- Energy Requirements 15
- Carbohydrate and Fat Requirements 16
- Protein Requirements 17
- Mineral Requirements 17
  - Calcium Requirements 18
  - Phosphorus Requirements 18
  - Iron Requirements 18
  - Iodine Requirements 19
  - Other Mineral Elements 20
- Vitamin Requirements 20
  - Latent Avitaminosis 21
  - Vitamin Units and Standards 22
  - Vitamin A Requirements 24
  - Vitamin B_1 Requirements 26
  - Vitamin C Requirements 27
  - Vitamin D Requirements

NUTRITIONAL ASPECTS OF CANNED FOODS 30
- Mineral Conservation (Overcoming Solution Losses) 31
- Vitamin Conservation (Overcoming Storage and Solution Losses) 34
  - Vitamin Stability During Canning 35
  - Vitamin A 36
  - Vitamin B_1 37
  - Vitamin C 38
  - Vitamin D 40
  - Vitamin G 41
- Infant Nutrition 41
  - Evaporated Milk 43
  - Strained Foods

PUBLIC HEALTH CONSIDERATIONS 45
- Food in the Open Can 47
- The "Ptomaines" 48
- Iron and Tin Salts 50
- Chemical Preservatives 51
- Botulism 53
- Federal Tolerances for Toxic Metals

SECTION II

CAN MANUFACTURE 56
- How Steel is Tinplated 57
- How the Modern "Sanitary Can" is Made 60
- Enameled Cans 61
- Can Sizes

CANNING PROCEDURE 62
- Raw Materials 63
- Cleansing Operations 63
- Preparatory Operations 64
- Inspection and Sorting Operations 64
- Blanching or Preheating Operations 65
- Filling and Brining or Syruping Operations 65
- Exhausting 67
- Sealing the Cans 67
- Heat Processing 68
- Cooling and Storing Operations 69
- Special Procedures 70
- Equipment and Sanitation in the Canning Plant

APPENDIX, REFERENCE TABLES 72
- Human Energy Expenditures 73
- Dietary Requirements 74
- Diabetic Classification of Foods 76
- Composition of the Human Body 76
- Mineral Constituents of Blood 77
- Cu., Fe., and Mn. Content of Fish Muscle 77
- Ca., Mg., P., and Fe. Content of Raw Vegetables 78
- Fe. Content of Foods 78
- Mn. Content of Vegetables 79
- Iodine Content of Foods 81
- Oxalic Acid in Common Foods 82
- Pellagra-Preventative Values of Foods 84
- Canned Foods, Proximate Composition of 99
- Canned Foods, Reported Vitamin Values of 104
- Food Equivalents 105

BIBLIOGRAPHY

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the educational material in this book is acceptable to the Council on Foods of the American Medical Association.

INFORMATION YOU WILL WANT AT HAND

For nearly a generation commercial canning of foods has been the subject of intensive research by chemists, biochemists and bacteriologists. You know many of the noteworthy contributions of canned foods, but an occasional layman-consumer still clings to some old, unfounded prejudices.

For your convenient reference, the Nutrition Laboratories, Research Department, of the American Can Company, have compiled a complete array of facts about dietary requirements, nutritive aspects of canned foods, canning procedures, etc. A bibliography of scientific literature is included. American Can Company, 230 Park Avenue, New York City.

110 pages of authoritative information, indexed for easy reference.

For your copy mail this coupon to
American Can Company,
230 Park Avenue, New York, N.Y.

Name _____

Address _____

City _____ State _____

Infantile Paralysis and Cerebral Diplegia. Methods used for the restoration of function. By Elizabeth Kenny. With foreward by H. J. Wilkinson, professor of anatomy and dean of the faculty of medicine, University of Queensland, Australia. Australia: Angus & Robertson Limited, 89 Castlereagh Street, Sydney.

The book is a discussion of the methods of hydrotherapy and physiotherapy used in the treatment of infantile paralysis and cerebral spastic paralysis of infants. Seven chapters are devoted to the treatment of infantile paralysis. There is nothing new in regard to the general principles of treatment. There are, however, some pieces of apparatus not in general use in this country which are worthy of investigation.

The four chapters devoted to the treatment of cerebral spastic paralysis from the standpoint of physiotherapy present no new principles or methods. Again there are various pieces of apparatus which are new and which appear to be of specific value. H. W. W.

MECKEL'S DIVERTICULUM

(Continued from page 733)

purse-string suture such as is used in an appendectomy or a transverse closure, the choice of methods being determined by the size of the opening. The closure should not constrict the bowel lumen. The intestine should be inspected for a reasonable distance above and below the site of the diverticulum. The repair of the hernia is then accomplished by the ordinary methods usually employed for the kind of hernia which is present.

Case Report

E. R., a white male, aged fifty-eight, entered the Wisconsin General Hospital, August 16, 1935, with a chief complaint of pain in the right side of his abdomen. In 1927, an appendectomy was performed through a right rectus incision and two years later repair of small hernias at the upper and lower ends of this incision was done. Bulging at the lower end of the incision was noticed eight days after the hernial repair, and both the mass and the defect gradually increased in size. The onset of abdominal pain at the site of the hernia was first noticed on August 10, 1935. It lasted for three days, subsided for about twenty-four hours and then recurred, being more severe during the two days prior to admission to the hospital. The pain had been cramp-like but there had been no nausea, vomiting, or constipation.

Inventory by systems disclosed urgency, frequency, and occasional incontinence, all of which had been present prior to the appendectomy and had improved following the operation. These symptoms had recurred during the recent attack of abdominal pain and the urine had exhibited a reddish tinge at that time.

The physical examination revealed an obese, white male. The head and neck were essentially normal. The lungs were clear and the heart was not enlarged. No murmurs were heard. The blood pressure was 140/100 mm. of mercury, pulse rate 72 per minute. The abdomen was rounded. At the lower end of a well-healed and pigmented right rectus scar there was a mass about 7 cm. in diameter, which could be completely reduced by returning it to the abdominal cavity through a defect in the abdominal wall which measured approximately 5 cm. in diameter. Gurgling was heard on reduction of the mass. The remainder of the physical examination was not remarkable.

The urinalysis and blood Wassermann reaction were negative. The blood count and blood chemistry were within normal limits. An x-ray examination of the chest disclosed the presence of diaphragmatic adhesions but there was no recent parenchymal change.

A diagnosis of ventral incisional hernia was made. On August 20, under general anaesthesia, a transverse incision was made over the defect in the abdominal wall and the hernial sac was encountered. On opening the sac it was found to contain a loop of ileum, the limbs of which were held together by firm adhesions. Springing from the antimesenteric border of the bowel at the apex of the loop was a cord-like structure measuring 5.5 cm. in length and about 1 cm. in diameter. The tip of it was free, and the serosa was acutely injected. The loop of ileum was adherent to approximately two thirds of the circumference of the abdominal wall defect. Loops of small bowel were adherent to the parietal peritoneum bordering the hernial ring and in dividing these adhesions the bowel was accidentally opened. The opening in the bowel was closed transversely by means of interrupted Lembert sutures of silk. The Meckel's diverticulum was removed by clamping its base and inverting the stump without ligation by a purse-string suture of silk in the same manner as in an appendectomy. No lumen was seen in the diverticulum nor was there a mesentery. Repair of the hernia was accomplished by the Mayo method. The postoperative course was entirely uneventful. The wound healed per primam. The patient was allowed to be out of bed on the sixteenth postoperative day and was dismissed from the hospital four days later.

The microscopic examination of the diverticulum showed a fibrous cord which contained numerous engorged blood vessels. No lumen was seen in these sections.

REFERENCES

1. Keen's Surgery, volume 4. Philadelphia: W. B. Saunders Company, pp. 667–668.
2. Quoted by reference number 3.
3. Watson, L. F.: Hernia. St. Louis: C. V. Mosby Company, 1924.

WHEN DEALING WITH CANCER

Consider the Utility, Accessibility and

LOW COST OF RADIUM THERAPY

LEASING PLAN: Equivalent to radium ownership without CAPITAL investment. You keep possession continuously. We pay insurance and upkeep. Fifty milligrams for $22.50 per month; 100 milligrams $40. Larger amounts in proportion. The initial lease is for a period of one year. New radium. Modern platinum containers.

RENTAL PLAN: Any quantity available by special delivery express. Platinum tubes and needles, and plaques, in all dosage range. The basic rate is $10 for 50 milligrams for 36 hours' actual time of application.

PURCHASE PLAN: Radium in all forms available for purchase in any quantity at the lowest price in the history of the radium industry.

RADON: Radon in ALL-GOLD implants at $2.50 per millicurie.

THE COMPLETE SERVICE FOR RADIUM USERS

Telephone RANdolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building **25 E. Washington St.**

CHICAGO, ILLINOIS

Every detail of your single vision or bifocal prescription carefully interpreted.

Highest quality—Accuracy—Correct Styling

N. P. Benson Optical Co., Inc.

"Established 1913"

MAIN OFFICE: MINNEAPOLIS, MINN.

—Branches—

ABERDEEN **EAU CLAIRE** **RAPID CITY**
BISMARCK **LA CROSSE** **STEVENS POINT**
DULUTH **WAUSAU** **ALBERT LEA**

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE—One used diathermy equipped for autocondensation and cauterization valued at $350, will sell for $50. One Fischer Morris wave generator valued at $450, will sell for $100. One used Static Holtz machine and chair with all accessories; purchase price $2,500, will sacrifice for $300. Communicate with G. J. Maloof, M.D., 19 North Pinckney Street, Madison, Wisconsin.

FOR SALE—Home and office with separate entrance. Partly furnished if desired. Office furniture steel enameled. Northeastern Wisconsin. Twin city population about 30,000. Splendid schools and churches. Hospital facilities available to an able and well-trained man. Terms to suit given on good security. Fifty years in practice. Must retire on account of failing heart. Address T. J. Redelings, M. D., Marinette, Wisconsin.

FOR SALE—An established medical and surgical practice in southern Wisconsin town of 900. Excellent roads, open hospitals within sixteen miles. Transferable appointments, no property to buy. Can do $8,000 to $10,000 practice first year. Address No. 89 in care of Journal.

FOR SALE—Office equipment of the late Dr. E. J. Helgesen. Can be bought separately or in one lot. Prices reasonable. Mr. William J. Helgesen, 35 North First Street, Evansville, Wisconsin.

EQUIPMENT FOR SALE—High-tension, 16-plate static machine; Fischer diathermy; portable General Electric x-ray with tube; Burdick electric cabinet, direct current; 10-inch x-ray with remote control. Write Dr. Philip Eisenberg, 606 West Wisconsin Avenue, Milwaukee.

FOR RENT—Finest medical office and location in the State for a Catholic physician. An established medical office for the last six years. Joint waiting room with me, a fourteen-year resident dentist. Dr. John F. Reilly, 3006 West Michigan Street, Milwaukee.

WANTED—Scandinavian assistant by a general practitioner, owning small hospital, and doing his own surgery in a small western Wisconsin community near Twin Cities. Prefer physician who has tried practicing alone and not found it to his liking, although a recent graduate might be acceptable. Address replies to No. 91 in care of Journal.

ASSISTANT WANTED in general practice with opportunity to assist in surgery. Prefer unmarried man. Guaranteed income. Location in southern Wisconsin. Address replies to No. 96 in care of Journal.

WANTED—General practitioner to associate with and share an attractive downtown office suite with an established eye, ear, nose, and throat specialist in Milwaukee. Would prefer one who desired to work into this specialty in the future. Address replies to No. 72 in care of Journal.

ASSISTANTSHIP WANTED—Young, experienced physician desires position as assistant to general practitioner with possibility of partnership or later buying practice. Address replies to No. 84 in care of Journal.

WANTED—One or two additional specialists to share an excellently equipped and furnished suite in a Milwaukee downtown office building. Secretarial, x-ray, and laboratory facilities provided. Address replies to No. 59 in care of the Journal.

WANTED—Live-wire, young, medical refractionist to build his own practice. Refraction work alone will guarantee $250 per month. Address replies to No. 95 in care of Journal.

LOCATION AVAILABLE—Village of 500 in south-central Wisconsin. Good educational facilities. Fertile farming territory. Address replies to No. 90 in care of Journal.

Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

PROFESSIONAL PROTECTION

SINCE 1899
SPECIALIZED
SERVICE

A DOCTOR SAYS:—

"I appreciate your consideration and the nice way you handled the case. The patient is returning to me and that means a lot."

THE
MEDICAL PROTECTIVE COMPANY
OF FORT WAYNE, INDIANA
WHEATON, ILLINOIS

PRICES OF ABBOTT VITAMIN PRODUCTS

WERE RADICALLY REDUCED AUGUST 2nd

With 18 to 34% reductions in the retail prices of Abbott's Haliver Oil with Viosterol and Plain in effect, price no longer is an obstacle to patients in obtaining these dependable vitamin products.

It is no secret that in the past deficient vitamin products have been offered for sale. In many cases low price has been the chief sales point. As so often is the case where quality differences can't be readily told by simple tests such as weight, taste, smell, or appearance, lower price all too often decides the purchaser's choice.

These treacherous price differences are now removed by reductions ranging up to 34% on the Abbott products!

Many persons—especially budget-minded mothers with several children who require a vitamin A and D supplement routinely—will be glad to know of this reduction in price. Prescribed routinely for growing children, to protect mother and child during pregnancy and lactation, and for all others who for any reason require extra amounts of these vitamins.

The new reduced prices apply to all sizes in which Abbott's Haliver Oil with Viosterol and Haliver Oil Plain are supplied —boxes of 25, 50, 100 and 250 3-minim capsules and the various sized vials of each. Abbott Laboratories, North Chicago, Ill.

SPECIFY

ABBOTT'S HALIVER OIL

WITH VIOSTEROL

ABBOTT LABORATORIES I-9-37
North Chicago, Illinois

Please send me free literature and samples of Abbott's Haliver Oil with Viosterol, capsuled.

_____ M.D.

Address _____

City _____ *State* _____

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

Fireproof

SCHROEDER HOTELS

Sleep in Safety

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

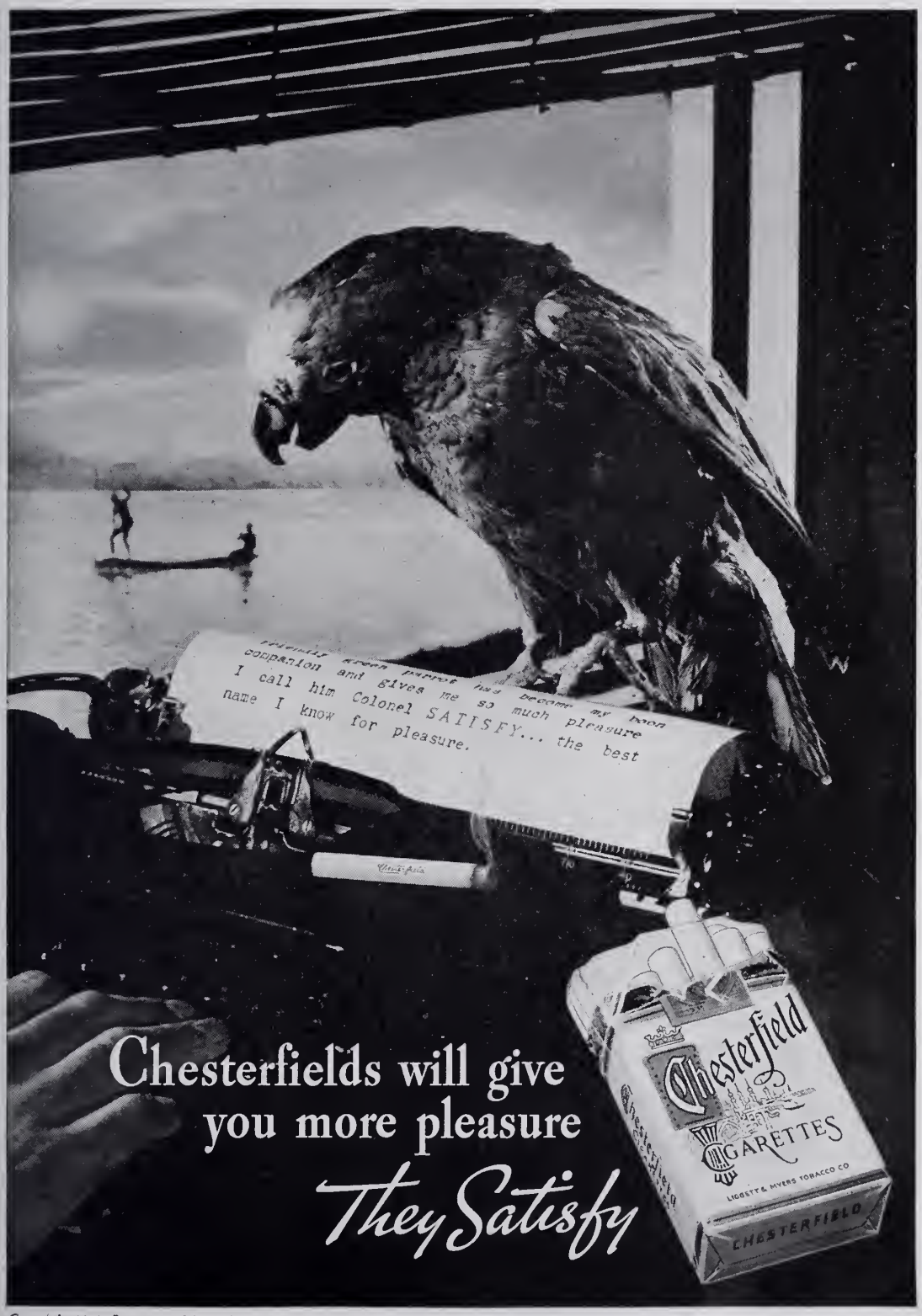
114 E. Washington Ave. Madison, Wis.

NINETY-SIXTH ANNIVERSARY MEETING

Milwaukee

State Medical Society of Wisconsin

September 15, 16 and 17



Copyright 1937, Liggett & Myers Tobacco Co.

BIDWELL BETTER LIMBS

Everyone Receives the Personal Attention of G. L. Bidwell the well-known Orthopedic Appliance Expert.

EXPERIENCED LADY ATTENDANT

Artificial Limbs, Braces, Trusses, Elastic Stockings, Crutches, Invalid Chairs, Abdominal Belts.

934 N. WATER ST.
PHONE BROADWAY 4369
MILWAUKEE, WISCONSIN

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S
770 North Water St. Phone Daly 1461
MILWAUKEE, WIS.

JAMES ROBBINS, M.D.
Medical Director

E. J. KELLEHER, M.D.

CHRISTY BROWN
Business Manager

PETER BASSOE, M.D.
Consulting Physician

Established 1905

Sanger Brown, M.D.

Kenilworth Sanitarium
Northern Suburb of Chicago

Built and Equipped for the Treatment of Nervous and Mental Diseases

Over Ten Acres Well Parked and Landscaped Grounds

Supervised Recreational and Occupational Activities

Gardening—Hydrotherapy

Address P. O. Box 600
Kenilworth, Ill.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

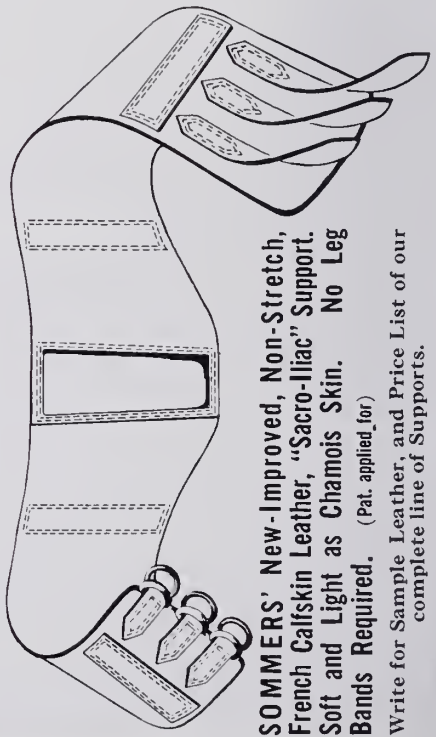
Send for application for membership in these purely professional Associations

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Since 1912



SOMMERS' New-Improved, Non-Stretch, French Calfskin Leather, "Sacro-Iliac" Support. Soft and Light as Chamois Skin. No Leg Bands Required. (Pat. applied for)

Write for Sample Leather, and Price List of our complete line of Supports.

SOMMERS' LEATHER SPECIALTY MFG. CO.
416 Washington St. Phone Blue 210 RIPON, WIS.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements

The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course

The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission

A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction

The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities

Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

STEPHEN E. GAVIN, Fond du Lac, President
JAMES C. SARGENT, Milwaukee, President-Elect
A. E. RECTOR, Appleton, Speaker
HENRY J. GRAMLING, Milwaukee, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:

Second District:
Frank W. Pope--------Racine

TERM EXPIRES 1937

Third District:
Joseph Dean ---------Madison

Fourth District:
W. Cunningham ----Platteville

TERM EXPIRES 1937

Fifth District:
A. H. Heidner------West Bend

Sixth District:
S. E. Gavin------Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi----------Galesville

Eighth District:
G. R. Duer----------Marinette

Ninth District:
Joseph F. Smith------Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler-------Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson------Iron River

Twelfth District:
Joseph Lettenberger-Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert---------Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Killins, Green Bay.
Calumet	A. J. Wagner, Brillion	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purcell, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Barghoitz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire-Dunn-Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	C. G. Richards, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, New Glarus	E. D. McConnell, Darlington.
Langlade	Paul Dailey, Elcho	W. P. Curran, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	H. H. Christensen, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Williams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Oneida-Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Anderson, Plum City	A. E. McMahon, Glenwood City.
Polk	W. C. Andrews, Frederic	Earl C. Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempealeau-Jackson-Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	W. W. Coon, Walworth	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	J. B. Vedder, Marshfield	W. G. Sexton, Marshfield.

THE HIGH TOLL OF LATE *syphilis* CAN BE REDUCED

"IT HAS BEEN ESTIMATED[1] that in the United States annually one-half million people with late syphilis seek treatment for the first time. . . ." It is hoped that these figures will be reduced as a result of the many publicity campaigns now under way. These patients will require careful supervision and persistent treatment.

Two Squibb preparations — Neoarsphenamine and Iodobismitol with Saligenin—have been found to be very effective in the treatment of syphilis. Neoarsphenamine Squibb is designed to produce maximum therapeutic benefit. It is subjected to exacting controls to assure a high margin of safety, uniform strength, ready solubility and high spirocheticidal activity. Equally effective when indicated are Arsphenamine Squibb and Sulpharsphenamine Squibb.

Iodobismitol with Saligenin is a propylene glycol solution containing 6 per cent sodium iodobismuthite, 12 per cent sodium iodide and 4 per cent saligenin (a local anesthetic). It presents bismuth largely in anionic (electro-negative) form. Iodobismitol with Saligenin is rapidly and completely absorbed and slowly excreted, thus providing a relatively prolonged bismuth effect. Repeated injections are well tolerated in both early and late syphilis.

For literature address Professional Service Dept., 745 Fifth Avenue, New York, N. Y.

[1] Cole, Harold N., *et al.*; *J. A. M. A.* 108:22, 1937.

E·R·SQUIBB & SONS, NEW YORK

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

When writing advertisers please mention the Journal

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Reeducational Methods Applied.

Building Fireproof

Isolated, Fireproof Psychopathic Department for Acute Mental Cases

Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
JAMES C. HASSALL, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin
PETER BASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office: 1330 Wells Building
Tuesday Mornings by Appointment
Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1-3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
Rock Sleyster, M.D., Medical Director.
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".

DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

The Wisconsin Medical Journal

IN THIS ISSUE

PRESIDENTIAL ADDRESS
By James C. Sargent, M. D.
BLOOD SEDIMENTATION RATE
By M. G. Peterman, M. D.
MEASLES; CONVALESCENT SERUM
By Maurice Hardgrove, M. D.
A. B. Schwartz, M. D.
Louise F. King, B. S.
ANNUAL MEETING REPORTS
105,300 AT HALL OF HEALTH

COLLEGE OF PHYSICIANS
LIBRARY
DEC 10 1937
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 800

XXXVI, Number 10
Washington Avenue

MADISON, WISCONSIN, OCTOBER, 1937

Per Year $3.50
Single Copy 40 Cents

Copyright, 1937, by The State Medical Society of Wisconsin

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

- A PRIVATE SANATORIUM.
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES.
- CAREFULLY SUPERVISED REST.
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Further Information Write
T. L. HARRINGTON, M. D., Medical Director,
Stevens Point, Wisconsin.

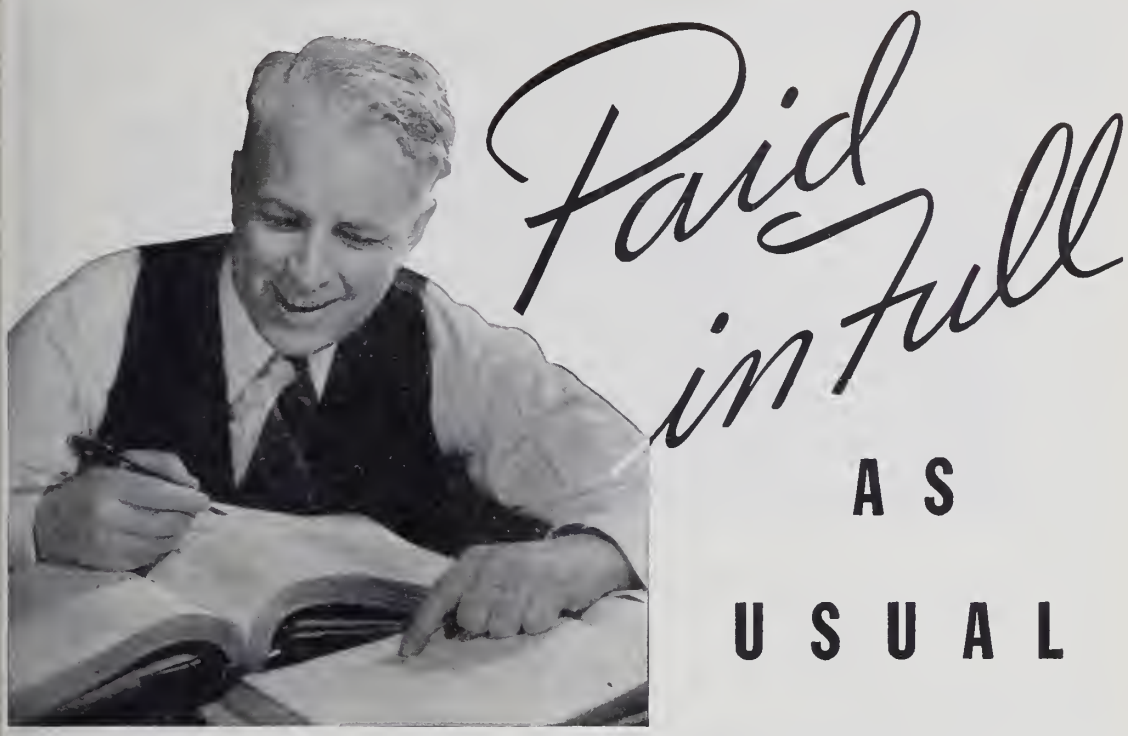
Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN



● Regardless of the state of collections in general, there is one group of pages in your Ledger that is free from overdue payments—the pages that contain the names of your patients that are covered by Employers Mutual Insurance. For Employers Mutual is justly proud of its record of claim-payments—invariably the promptest of any insurance company. ● This is your most direct proof of the efficiency of Employers Mutual, although you must have noticed others such as the unequalled Safety Engineering Service that reduces the frequency and severity of accidents in hundreds and thousands of industrial organizations, the rapidity with which service is rendered when needed, and the substantial savings that Employers Mutual dividends give to policyholders. ● All of these benefits can come to you as readily as to the largest organization, in the forms of Insurance that you must carry for complete protection. May we send a representative to discuss your problems with you, and make unbiased recommendations as to protection and policies? You place yourself under no obligation by asking your nearest Branch Office for this service.

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.

PROTECTION SAVING SERVICE — EMPLOYERS MUTUALS INSURANCE Established 1911

EMPLOYERS MUTUAL FIRE INSURANCE COMPANY

HOME OFFICE WAUSAU, WIS.

Branch Offices in Appleton, Eau Claire, La Crosse, Milwaukee, Madison, Racine, Superior and Wausau

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 10

MADISON, WISCONSIN, OCTOBER, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES

Page

Presidential Address by James C. Sargent, M.D., Milwaukee ---- 811

The Blood Sedimentation Rate by M. G. Peterman, M.D., Milwaukee ---- 815

Measles; The Use of Convalescent Serum in the Prevention, Modification, and Treatment by Maurice Hardgrove, M.D., A. B. Schwartz, M.D., and Louise F. King, B.S., Milwaukee ---- 817

Extroversion of the Urinary Bladder; Report of Case by Walter M. Kearns, M.D., Milwaukee 820

Transurethral Prostatic Resection for Bladder Neck Obstruction by Alf H. Gundersen, M.D., La Crosse ---- 824

Tuberculosis; The Clinical Phase by H. M. Coon, M.D., Statesan ---- 829

EDITORIALS

"Wisconsin's Hall of Health" ---- 834

Ophthalmologist ---- 836

MISCELLANY

Page

The Woman's Auxiliary ---- 837

Society Proceedings ---- 846

News Items and Personals ---- 847

Marriages, Deaths ---- 848

Society Records ---- 849

Report of Ninety-Sixth Anniversary Meeting ---- 849

105,300 Visit the Hall of Health; Pictures Tell the Story ---- 854

1,245 Members Registered at Milwaukee Session 858

Congress of Anesthetists in Madison, October 29–30 ---- 866

Books Received for Review ---- 867

Book Reviews ---- 867

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]

"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physio-mechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M.D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D.
L. Tennyson Peyton, M.D.

When writing advertisers please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **Joel C. Hultkrans, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

FORTIER and FORTIER

X-RAY LABORATORY

Deep Therapy, 200,000 Volts
Superficial Therapy
Roentgen Diagnosis

Radiographic Examinations made at beside in residence if desired.

709-710 MAJESTIC BUILDING
MILWAUKEE

Office **Marquette 5150-5151**

Residence **Edgewood 0420**

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES
STARTING EVERY WEEK

MEDICINE—Informal Course first of every week; Intensive Personal Courses; Special Courses.

SURGERY—General Courses, One, Two, Three and Six Months; Two Weeks Intensive Course in Surgical Technique with practice on living tissue; Clinical Course; Special Courses.

GYNECOLOGY—Diagnostic Courses; Clinical Courses; Special Courses starting every week.

FRACTURES AND TRAUMATIC SURGERY—Informal Practical Course; Ten-Day Intensive Course starting October 11.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting April 4, 1938.

OPHTHALMOLOGY—Two Weeks Intensive Course starting April 18, 1938; Personal Course in Refraction.

UROLOGY—General Course Two Months; Intensive Course Two Weeks; Special Courses.

CYSTOSCOPY—Ten-Day Course every two weeks.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE AND SURGERY starting every week.

Teaching Faculty—Attending Staff
of Cook County Hospital

Address: Registrar, 427 South Honore Street, Chicago, Illinois.

TO THE DOCTOR'S WIFE

•

It is our conviction that cosmetics should be selected to suit the individual's requirements. We cater exclusively to you, the individual. Our representatives are trained to help you select suitable beauty preparations and to show you how to apply them.

It is only sensible to realize that a truly beautiful skin is first of all a healthy skin and secondly a well-cared-for skin.

Cosmetics serve to enhance your appearance, to present you at your best. In this regard it is well to bear in mind that a natural appearance is by far the most charming.

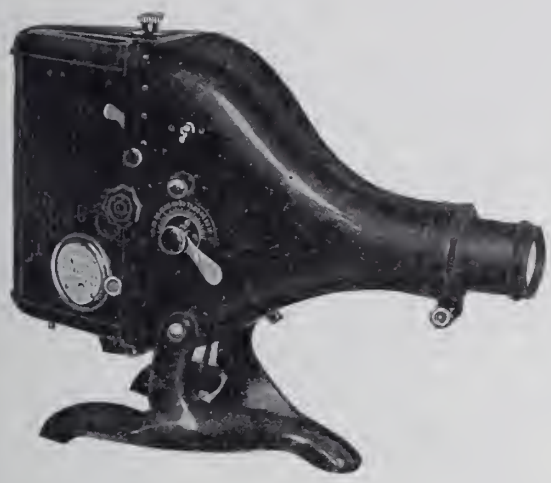
Carefully selected, and artistically applied, make-up preparations lose their identity as cosmetics and become an indistinguishable part of your personality.

We want it clearly understood that we in no way undertake to treat skin disorders. If you are thus afflicted we had rather that you not use our preparations without the consent of a skin specialist. Our formulary is available to the medical profession.

A card addressed to us will be referred to the manager of the territory in which you reside. It is our pleasure to be at your service.—LUZIER'S, Inc.

Beauty Preparations by Luzier

KANSAS CITY, MISSOURI



The New Shuron Techniscope imparts the latest developments in chart projection to give you an efficient, easily-operating projection instrument with which to work.

Floor stand or table model finished in telephone black finish can be used at any distance from ten feet to twenty feet.

The Milwaukee Optical Manufacturing Company

208 East Wisconsin Avenue Milwaukee, Wisconsin

Behind

MERCUROCHROME

(dibrom-oxymercuri-fluorescein-sodium)

H&D *is a background of*

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.

BALTIMORE, MARYLAND

NON-CANCELLABLE

Health and Accident Insurance

and

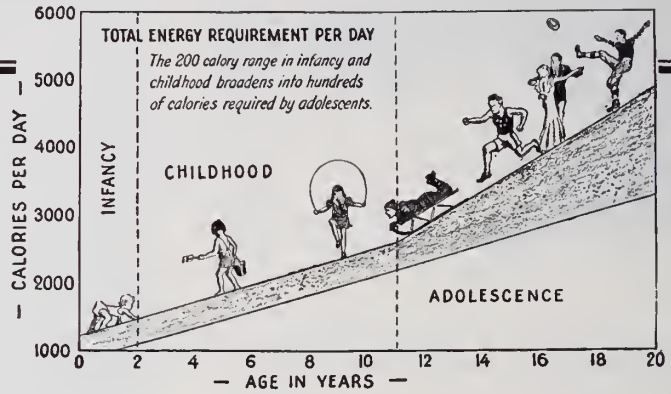
Low Cost, Guaranteed Rate Life Insurance

THE MASSACHUSETTS PROTECTIVE COMPANIES

Worcester, Massachusetts

A. L. LYTTLE, General Agent
5000 Plankinton Building
Milwaukee, Wisconsin

Careful study shows many young folks do not consume enough food to provide them with the enormous energy requirements necessary during the transitional period of adolescence. The symptoms are the consequence of undernutrition.



NORMAL ADOLESCENT boys and girls frequently complain of fatigue. They feel weak and irritable; they show a diminished ability to concentrate; they are disinclined to work; they are physically inefficient.

Some of these symptoms are physiological manifestations of adolescent development.

The graph reveals the sudden rise in caloric requirement during adolescence. Three hurried meals are usually insufficient to provide the tremendous caloric needs. Accessory meals, mid-morning and mid-afternoon, in certain instances, may be prescribed with advantage.

And Karo added to foods and fluids can increase calories as needed. A tablespoon of Karo yields 60 calories. It consists of palatable dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor).

Karo is well-tolerated, highly digestible, not readily fermentable, effectively utilized and inexpensive.

For further information, write
CORN PRODUCTS SALES COMPANY
Dept. SJ-10, Battery Place, New York, N. Y.

★ Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.

IRRADIATED EVAPORATED MILK RIGHT FROM THE START

For more than three years Irradiated Evaporated Milk has provided thousands of youngsters with all the nutrients and all the special advantages of evaporated milk with which you are familiar. In addition, it supplies good amounts of Irradiated Vitamin D which fosters better use of the milk minerals—calcium and phosphorus—to help build sturdier bones and sounder teeth.

At this time of the year, special heed may well be given to the Vitamin D benefits which Irradiated Evaporated Milk provides. For summer's sunlit days are gone. Children are much indoors. Days are shorter, and sunlight is weak in Vitamin D-creating rays.

But adequate Vitamin D is needed throughout the year! Irradiated Evaporated Milk, enriched with Vitamin D by means of the Steenbock Irradiation Process, always supplies Vitamin D in uniform quantities. That's why many pediatricians and physicians prescribe Irradiated Evaporated Milk for all feeding formulae and recommend it for general use.

Send for Interesting FREE BOOKLETS

Special studies on infant feeding, sponsored by the Irradiated Evaporated Milk Institute, are being carried out constantly at leading scientific centers. Many of these findings are contained in "Brief Excerpts from Scientific Literature." Also available is an authoritative booklet, "Infant Feeding with Irradiated Evaporated Milk." Both will be sent to you without charge on receipt of the coupon below.

WISCONSIN ALUMNI RESEARCH FOUNDATION★

MADISON, WISCONSIN

★ A corporation not for private profit . . . founded in 1925 . . . to accept and administer, voluntarily assigned patents and patentable scientific discoveries developed at the University of Wisconsin. By continuous biological assays, the public and professional confidence in accurately standardized Vitamin D is maintained. All net avails above operating costs are dedicated to scientific research.

The Wisconsin Alumni Research Foundation, Madison, Wisconsin. (WMJ 1037)

Please send me the pamphlets: "Infant Feeding with Irradiated Evaporated Milk" and "Brief Excerpts from Scientific Literature."

Name.....

Address.....

City..... State.....

THE SUMMIT HOSPITAL

Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Insulin Shock

Carbon Dioxide and

Fever Therapy

for selected cases

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

HOW DO YOU GET SUCH FINE RADIOGRAPHS?

THIS frequent inquiry, enthusiastic users of the Model R-36 Diagnostic X-Ray Unit tell us, is another source of continual satisfaction.

Owners are producing uniformly good diagnostic radiographs because this practically designed unit is simple and easy to operate—accurately.

Here's a unit that packs real power—chest radiographs, for example, with $^1/_{10}$th- and $^1/_{20}$th-second exposures at 6 feet distance. With two focal spots in the radiographic tube, you select the one best suited to technic and area of the body under observation.

Fluoroscopy too—from head to toe—at any angle, with a separate tube and high voltage circuit, operated through the same control unit.

Shockproof, self-contained, compact, of the finest electrical and mechanical construction, the R-36 is a sound, economical investment for the physician who is forging ahead, determined to give all his patients the full benefits of modern diagnostic facilities.

Want the complete story? Use this convenient coupon.

GENERAL ELECTRIC A-510
X-RAY CORPORATION
2012 Jackson Blvd. Chicago, Ill.

Please send your booklet on the R-36 X-Ray Unit for complete diagnostic service.

Name.....

Address.....

City..... State.....

Acute Rhinitis in Children

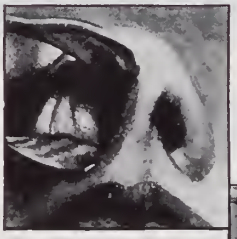


FIG. 1. J. M. C. White, female, age 4. June 5, 1936. Acute rhinitis. 11:40 A. M. Two inhalations of 'Benzedrine Inhaler'.

FIG. 2. 11:50 A. M. Maximum shrinkage evident.

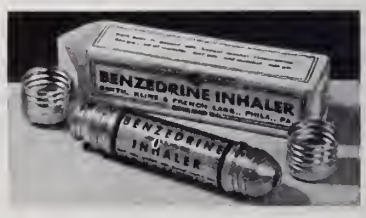
In 100 cases of acute rhinitis in children from two months to twelve years of age treated with 'Benzedrine Inhaler' Scarano and Coppolino report prompt and adequate shrinkage of the nasal mucosa in 97 per cent. — Arch. Pediat. **54**: 97, 1937.

The vapor form — in addition to its greater effectiveness — overcomes the strenuous objections which children show to liquid inhalants as applied by drops, tampons or sprays. Obviously, however, as with any medication for children, an adult should supervise the use of the Inhaler and retain possession of the tube.

BENZEDRINE INHALER

A VOLATILE VASOCONSTRICTOR

ACCEPTED AMERICAN MEDICAL ASS'N



Each tube is packed with benzyl methyl carbinamine, S. K. F., 0.325 gm.; oil of lavender, 0.097 gm.; and menthol, 0.032gm. 'Benzedrine' is the trade mark for S. K. F.'s nasal inhaler and for their brand of the substance whose descriptive name is benzylmethyl carbinamine.

SMITH, KLINE & FRENCH LABORATORIES • PHILADELPHIA, PA.

ESTABLISHED 1841

When writing advertisers please mention the Journal.

THE NEW

"WILS-EDGE"

Screwless - Holeless - Rimless

Decidedly Different Definitely Superior

Send for Folder

N. P. BENSON OPTICAL CO., INC.

Established 1913

MAIN OFFICE: MINNEAPOLIS, MINN.

— Branches —

Aberdeen
Bismarck
Duluth
Eau Claire
La Crosse
Wausau
Rapid City
Stevens Point
Albert Lea

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St.,
Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268-2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D.,
Frederick Menge, M.D., S. C. Plummer, M.D.

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$37.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department

Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 10 Copyright, 1937, by The State Medical Society of Wisconsin OCTOBER, 1937

Presidential Address*

By JAMES C. SARGENT, M. D.
Milwaukee

AT THE annual meeting of our Society held last fall in Madison, your House of Delegates saw fit to designate me as your president-elect, induction into the presidency to occur at the time of this meeting. It is utterly useless for me to attempt an expression of my pride and my appreciation over this honor. It sounds commonplace, I know, to say that I am overwhelmed, but it is none the less true. Since that meeting I have taken pains to recall the succession of men so honored during my memory and it has left me at once confused over my own election and appalled at the comparisons I shall have to face. In response to the honor and trust imposed, I can only return the best in effort and application that lies within me. That, you may be sure, I purpose to do.

With the passing of this year I have learned that there is considerably more than honor attached to the office of president-elect of this Society. With it goes the beginnings of the responsibilities that the coming year is to bring. With it goes the privilege of numbers of fine acquaintances and, early, one senses the steady accrual of a real working fellowship among a mounting host of friends. Greater even than these, however, one finds the opportunity that advance notice always gives for consideration and study of the affairs that lie ahead.

Thoroughly mindful of that opportunity, I have gone to some length during the year just past in an effort to familiarize myself with the many affairs encompassed within the scope of our great and growing organization. In particular, I have taken occasion to sample here and there the minds of men within our membership in an effort to learn just what is wanted of our organization and where it is intended that we shall go.

In the welter of confusion into which the profession has been thrown by the whirl of social thinking that engulfs us, it can be no surprise to you to learn that there are, at this moment, a number of matters of real contention within our membership. On the other hand, it should interest you, as it did me, to learn of one line of thinking along which everyone, it seems, has come to be in accord. I refer to the deep current of conviction presently running through the profession to the effect that medicine will be soundly organized or it will perish; that to continue purely as a scientific assembly no longer will suffice; that the thrust of a national campaign for social medicine is being aimed at us here in Wisconsin and, whether we will or no, we are being driven more and more to the necessity of a militant fight not alone to retain our professional integrity but to preserve the tremendous advances in public health that have been gained by our many long years of patient effort.

Often we have told ourselves, and with ample truth, that "what is good for the public must be good for the profession." Interestingly enough, the converse of that truism applies. Whatever makes for the welfare of our profession certainly must make for the public good. Ever a rich blend of art and science, medicine by its very nature remains a mystery completely beyond the ken of minds untrained. It is that simple fact that places squarely upon us the duty of enlightening public thought and leading public action to the end that evolution in our system of care of the sick shall be both intelligent and orderly.

It has remained the policy of the profession of our State to refrain from political maneuvering to attain the aims that it has

* Read before the 96th anniversary meeting of the State Medical Society of Wisconsin, Thursday, September 16, 1937.

pursued. With each of you I am sure, I trust that that policy will always prevail. I am sure it is correct, however, when I report the development of a very general interest among physicians concerning recent efforts within our legislature looking toward radical changes in the system of care of the sick in Wisconsin. I am sure I foresee, and I shall favor it, a concerted effort on the part of doctors throughout the State to learn in advance the minds of candidates running for public office in their communities and to take an active interest in seeing that those elected shall be men who have a fair appreciation of the present wonderful development of American medicine; men who know clearly the disastrous consequences that invariably have followed the socialization of our profession elsewhere throughout the world.

Delivery of Medical Service

Along with this quite general feeling of the need for a united and alert state organization — possibly, even a part of that feeling—I have sensed a common desire that we as a profession proceed promptly and pointedly to the task of determining where, if at all, the care of the sick in Wisconsin is inadequate or substandard; that if such conditions are found to prevail, we determine the proper method for their correction and then proceed with its application. Such a desire translated into action calls for certain new activities on the part of our Society.

Of the dozens of different schemes which have been proposed to lighten the financial burden of serious illness, there is one that stands apart in the favor with which it is being considered by those actively engaged in the care of the sick. I refer to the general subject of hospital insurance. Few, if any, hospital prepayment plans presently operating do, in fact, confine themselves purely to the field of hospital care. Yet they purport to do so, and it is largely because of the implication that the actual medical care of the patient is to be left undisturbed that doctors in increasing numbers are coming to insist that the whole subject be given careful and sympathetic consideration.

Not the least of the many important phases of this new movement is that having to do with the question of management and control. Fearing the possibility of its spreading into a general system of State medicine, the profession stands adamant against any form of hospital insurance under sponsorship and control of governmental agencies. Certainly, if hospital insurance merits a trial here in Wisconsin and if it is not to be State-controlled, the particular pattern under which it shall operate becomes of prime concern to hospital management and to the profession alike.

It is with this thought in mind that the House of Delegates has been asked to authorize the appointment of a special committee to which would be added, by special invitation, a representative group of the leading minds interested in hospital management here in the State. The suggestion also has been made that special appropriation be made, adequate to provide this committee with actuarial data to be developed by competent and authoritative research. Certainly, after careful study of the conditions that prevail here in Wisconsin, and having at its disposal expert actuarial counsel, such a special committee might well determine whether real need for such a movement presently exists; and, if so, it might, with real intelligence, recommend the particular plan that appears best suited to our problem.

Entirely apart from the question of hospital insurance, we are faced with another and even more important responsibility. I now refer to the charge so frequently expressed that there are people within our State, especially in the smaller communities, to whom for one or another reason good sickness care is not readily available. Despite the frequency and fervor of that charge and contrary even to the reported findings of certain so-called "surveys," our Society has proceeded in the belief that good sickness care is and has been easily available to every one in Wisconsin. I, personally, am of that belief and I know that most of you share it. Belief is one thing, however, and certain knowledge another. If inadequacies in sickness care do prevail in our State, it is

the clear duty of our profession to proceed at once to find and correct them.

With this in mind, our House of Delegates also has had before it the suggestion that we undertake a thorough, state-wide survey of all phases of sickness care. It has been proposed that a second special committee be appointed, manned by men within our membership particularly chosen for the task and willing themselves to devote to its cause week end after week end until the group shall have had ample time to cover the entire State from one end to the other.

Much as was done by the Governor's recent Committee on Public Welfare, this roving committee, its plans and contacts well mapped out in advance through our Executive Offices, would hold sessions in key places throughout the State at which detailed hearings would be held with representative physicians active both in rural and urban practice; with the leaders of groups affiliate with medicine; with agencies in charge of relief; and finally, and most important, with representative citizens from all walks of life.

This method of determining the actual status of sickness care in Wisconsin commends itself for several reasons. It assigns to a small and wieldy group of willing and able men the job of determining broadly, yet in adequate detail, the real truth concerning this much discussed subject. It is designed to bring through this group to the organized profession of the State, first-hand information concerning inadequacies, if they do exist, as well as worth-while suggestions received as to their correction. And finally, given the advantage of suitable counsel with legal and actuarial experts, such a group would be peculiarly fitted to bring to the profession and to the public considered and intelligent opinion concerning the whole subject of the care of our sick and how, if possible, it might be improved.

So much for matters pertaining to the quality and adequacy of sickness care of our people. I should like to address myself now to another subject which I believe at the moment to be of prime concern to profession and public alike. I refer to the prevention of suffering and death through accident.

In his scholarly address from this platform a year ago, your then newly installed president, Dr. Gavin, made a powerful plea for a militant program of disease prevention to be waged by the family doctor as part and parcel of the routine of daily practice. It was high time, indeed, that leadership of this sort appeared to call a halt to the steady leak of public health work from the life of the American physician. There is no single unit presently active in the broad field of care of the sick even half so blessed with the opportunity for great service in this cause as the family doctor. He must not fail to make the most of this opportunity and it is clearly a function of our organization to help and inspire him to this work.

A New Challenge

Today I would have us take yet another step in public health work already long past due. Almost from the beginning of Wisconsin as a state, its physicians have been constantly alert exploring the possibilities lying in various methods of disease prevention. Confronted again and again by strong opposition of vested and selfish interests, our organization has forced the inauguration and pursuance of one after another public health movement until today community morbidity and mortality rates here have come to be the envy of many and second to none.

And yet, we will not stop!

People here in America read with horror the appalling list of our dead piled up in the fields of Flanders, yet the final total of all American soldiers killed throughout the entire World War did not even equal the number of healthy, useful citizens—100,000 of them—who died needlessly through accident here in America, last year alone. When we think of public health work, we think largely in terms of contagious disease. We have written stringent laws; built large public health departments and expended many many millions in dollars to keep these human scourges under reasonable control. Yet, add them all together: treacherous measles, scarlet fever, and whooping cough; frightful infantile paralysis, lockjaw and meningitis; deadly typhoid, smallpox and

diphtheria, and then for full measure put in the greatest of all killers of youth—tuberculosis; add all of these dreadful diseases together and they hardly equal the automobile in the numbers that they kill each year here in Wisconsin. Kill, did I say? But that is the least part of the frightful story. For every automobile death there are ten other people painfully injured; many horribly and hopelessly maimed for life. Is that not a real public health challenge?

In recent years, one after another public-spirited agency has thrown the full force of its efforts into a campaign of education and propaganda attempting to stem the mounting tide of automobile accidents. Laws have been invoked to curb reckless and dangerous driving. Manufacturers have spent whole fortunes striving toward safety through increased mechanical perfection. Yet, in spite of these worthy efforts the curve mounts ever upward.

It is trite, of course, to say that all accidental deaths are preventable. However perfect the efforts at prevention, it is simply an immutable law that accidents will happen in automobiles just as they will happen in bathtubs or around foundry equipment. Be that as it may, it still remains a clear truth that, despite our sorry record to date, a very commanding share of automobile accidents lend themselves to easy and practical measures of prevention. We as a people simply are not yet sufficiently impressed with their importance to prompt us to apply the remedy. To the extent to which that is true, just to that extent, it seems to me, those of us who live around the blood and grime of this holocaust, have the inescapable responsibility of goading public attention until practical and effective control measures shall have been applied.

Excessive speed, of and by itself, accounts for fully one third of all automobile deaths. Speed, moreover, is a definite contributing factor in deaths classified as due to driving on the wrong side of the road, driving off the road, driving through right-of-way, and so-called reckless driving. If all of these are included, excessive speed becomes a potent factor in nine out of every ten fatal accidents involving driver responsibility.

But can the element of excessive speed be materially eliminated? Certainly it can. Effective control of speed merely waits the day when public indignation shall have risen to demand the use of mechanical speed governors on all trucks and automobiles permitted the use of our highways. Every five minutes someone in America dies in tragic proof of the fact that a small group of safety workers trying desperately to induce car owners to drive at moderate speed is not sufficient to offset the effect of the vast army of auto salesmen marketing cars of ever increasing power and speed. That mechanical governors will really reduce accidents already has been clearly demonstrated. Such a device, quite crude and imperfect by the way, was placed on each of 20,000 CCC camp trucks and the accident rate dropped fully 50 per cent.

Long and sad experience finally proved that children simply could not be taught any safe way of using cannon crackers and roman candles. In spite of the protest of the fireworks industry and even despite considerable resentment on the part of a thoughtless public, communities like Milwaukee simply had to take these dangerous toys from their hands. How much longer must we continue picking horribly mangled, broken bodies from our highways before we turn to the practical task of taking sixty, seventy, eighty, and ninety-miles-per-hour cars out of the hands of our grown-up children?

Fifteen per cent of all deaths involving car occupants occur when one car rides over the center line causing collision. Nearly the same percentage of pedestrian deaths occurs from hiking on the open highway. These are formidable figures, yet they could be eliminated entirely from our statistics by a program of highway construction designed to forbid them.

"Meet the Issue"

There are a number of other examples but these several will serve to indicate the facility and the certainty with which motor accidents could be greatly reduced if only we were ready to meet the issue face to face. Not once down through the long years of our

fight for life and health has there ever occurred such an opportunity as this. How long drawn out the fight against smallpox; at what cost in men and money the control of malaria; how disheartening and difficult the battle against tuberculosis. Measured by these, this problem of bringing highway deaths and injuries under reasonable control would be child's play, if only people might be made to know the horror of it all; if only they might be shocked into a determined effort to put a stop to this slaughter.

At the outset I ventured the suggestion that our organization interest itself in this great cause. It is my hope that we will take an active and militant lead in the introduction and passage of proper and effective legislation aimed directly at the control of this appalling waste of life. I propose, moreover, that we undertake a campaign of realistic education to the end that public interest be aroused in support of such legislative action.

People in general apparently have developed an amazing interest in public health work. Lay interest in disease prevention seems almost to have reached the proportions of a fetish. Reams appear in journals and magazines carrying, often, the most impractical and imaginative babblings regarding the prevention of disease. Syphilis, fully a decade ago already well on its way to complete eradication (at least here in Wisconsin), is now suddenly discovered as a glamorous and commanding problem of public health. Certainly, unless this great lay fervor for disease prevention is pure hypocrisy, we should be able to enlist militant public support in forcing the undertaking here in our state of regulatory measures that would be sufficiently direct to bring about a sharp drop in the present terrifying incidence of accidental death and disability.

Conclusion

These, then, are chief among the thoughts that have shaped themselves from experiences and contacts privileged me during the year just passed. I am impressed with the large opportunity for a great public service that presents itself to the profession of our State in the matter of forging ahead yet again in our ever-expanding campaign of prevention of suffering and death, this time by active leadership in a fight against the ravages of suffering and death by accident. I am impressed with the great interest both within and without the profession in the matter of lessening somewhat the economic sting of serious sickness through some plan of prepayment for hospital care. I am impressed with the absolute necessity of knowing the truth concerning the adequacy of sickness care in general throughout our State and of taking prompt and effective steps to supply deficiencies if they be found.

And, finally, I have full confidence that with such a program actively and honestly and fearlessly pursued, the profession of Wisconsin might well rest its case, confident that the common sense of our people is too great to permit them to be carried away by any such hodgepodge of slanderous, unstudied, and ill-advised government action as that proposed recently for the serious consideration of our legislature.

The Blood Sedimentation Rate*

By M. G. PETERMAN, M. D.
Milwaukee

THE blood sedimentation test is a useful adjunct in making a diagnosis and in determining a prognosis. It has won a definite and a permanent place among the laboratory aids. The simplicity of the test makes it a practical office procedure which should be used to supplement but not replace the leucocyte and differential count.

Centuries ago Galen, and later Hewson and Hunter, made the observations that the red cells settled out of the serum at different rates in different diseases. A number of in-

* From the Department of Pediatrics, Marquette University Medical School and the Milwaukee Children's Hospital. Read before The Medical Society of Milwaukee County March 12, 1937.

vestigators have proposed methods for the determination of the rate of settling out. Fundamentally, this rate of sedimentation is dependent upon a qualitative change in the serum globulin, a change in the colloidal state or in the electric potential between the negatively charged red cells and the positively charged fibrinogen in the plasma. Of the various methods developed, three remain in common use, i.e., the Linzenmeier, the Westergren, and the Cutler. They are all based upon the prompt mixture of four parts of 2 to 5 per cent sodium citrate solution with one part of freshly drawn venous blood. This mixture is allowed to stand in a tube or syringe and the resulting rate of fall of the red cells out of their serum suspension is read off either in millimeters of clear serum per period of time, or in time required for the red cells to reach a certain mark.

We have made a study of the sedimentation rate at the Milwaukee Children's Hospital since 1926. The Westergren method has been used except in comparative studies. The normal readings are 2–4 mm. clear serum in a half hour, 4–8 mm. in one hour, and 10–20 mm. in two hours. The twenty-four-hour reading is the hematocrit. Last year there were 510 tests made in the hospital.

In 1929, Seeger and I reported a study of the sedimentation rate and a review of the literature to date.[1] We concluded that one determination of the sedimentation rate was of little value in diagnosis and of no value in prognosis. A single normal or slightly increased, or slightly decreased, rate means little. A rapid rate indicates some abnormality. We had observed variations in the rate when various anticoagulants were used, variations during the day, and variations in relation to meals. My experience in the past seven years has led me to believe now that the sedimentation test is of inestimable value in certain cases particularly in the diagnosis and treatment of rheumatic fever, tuberculosis, mastoiditis, osteomyelitis, obscure fevers, and indefinite abdominal pain.

The sedimentation rate is increased in acute rheumatic fever, acute endocarditis, active tuberculosis, pneumonia, especially lobar, acute osteomyelitis, acute nephritis, nephrosis, septicemia, and malignant lesions. It is decreased in anemia, liver disease, bronchial asthma, and rickets.

There are often occasions when it is difficult to determine whether a moderate degree of leucocytosis means a low-grade infection or a poor response of the defense mechanism, or whether the lack of polymorphonuclear increase means the absence of pus or a poor response of the bone marrow. The Schilling or Arneth counts of the developing polynuclear cells is of value in such cases, but these counts are subject to individual interpretation and they are rather time-consuming to make. Unless the same technician continues the counts, there will be a great variation in the designation of the same type of cell. Here, then, is a place for the sedimentation test.

One may say that regardless of the subjective feelings of the patient, the so-called "clinical appearance," the temperature curve, or the leucocyte count, a rapid sedimentation rate indicates the presence of an acute, inflammatory process or an active malignancy. Consistently increasing sedimentation rates indicate an extension of the focus or a failure of the defense mechanism. Suppose one sees a child who complains of pains in the legs or in the joints. The history is suggestive of a rheumatic infection. The physical findings are negative and the blood count is essentially normal. In such a case, a normal sedimentation rate excludes the diagnosis of acute rheumatic fever; a rapid rate confirms the diagnosis. A consistently increasing rate indicates progression of the disease, regardless of any other findings. A return to the normal rate indicates recovery. Exacerbations or complications of the disease may be anticipated by as much as two weeks in an increased rate of sedimentation.

Given a ten-year-old child with a history suggestive of tuberculosis and a negative physical examination, except perhaps for underweight. Add a slightly positive tuberculin reaction. A normal sedimentation rate means no activity of the tuberculous process, a rapid rate indicates activity. Subsequent rates indicate the progression or

the regression of the disease far better than physical findings or roentgenograms.

I have a group of cases of otitis media in which the question of mastoid involvement was confirmed by the sedimentation rate. These children ran irregular fevers after the ear drums were incised. The local findings were not definite. The leucocyte counts were irregular, usually only slightly increased. The roentgenograms were always not only valueless but confusing. A rapid sedimentation rate, persisting or increasing, indicated a progressive inflammatory process. No other focus of infection was found; therefore, the diagnosis of mastoiditis was made. Operation revealed pus in the mastoid cells.

The patient with an obscure irregular fever and no definite physical findings usually presents a difficult problem in diagnosis. With normal blood counts, negative agglutinations and negative tuberculin reactions, there still remains the question of a hidden focus of infection, or a fever without a physical basis. A normal sedimentation rate means no infection, a rapid rate indicates some hidden lesion.

Murphy has shown that the prognosis in nephritis may be determined by the sedimentation rate.[2] As long as the rate is rapid, the nephritis is still active. When the rate slows down, the nephritis is healing.

Conclusion

In conclusion, may I say that the sedimentation rate is a useful adjunct in diagnosis and in prognosis. The rapidity of the rate of fall of the red cells may be accurately measured. It is not possible, nor does it seem necessary, to construct a mathematical formula for evaluating slight differences in rate. It is sufficient to conclude that a normal rate, checked, indicates no active inflammatory process, a rapid rate does indicate such a process. An increasing rate indicates an extension of the lesion, a decreasing rate, recovery.

REFERENCES

1. Peterman, M. G., and Seeger, S. J.: Sedimentation Reaction in Children. Am. J. Dis. Child., **37**: 693–731 (April) 1929.
2. Murphy, F. D., Grill, J., and Moxon, G. F.: Acute Diffuse Glomerular Nephritis; study of ninety-four cases with special consideration of stage of transition into chronic form. Arch. Int. Med., **54**:483–508 (Oct.) 1934.

Measles; The Use of Convalescent Serum in the Prevention, Modification, and Treatment*

By MAURICE HARDGROVE, M. D., A. B. SCHWARTZ, M. D., and LOUISE F. KING, B. S.

Milwaukee

THE Milwaukee Serum Center established at Columbia Hospital in February 1935, through the cooperation of the City Health Department, has prepared human convalescent serum for use in the prevention and treatment of the following diseases: scarlet fever, measles, mumps, chickenpox, and poliomyelitis. The results of the use of convalescent serum in the prevention and treatment of scarlet fever have been highly successful.[1,2] It has also been of value in treating other hemolytic streptococcic infections.

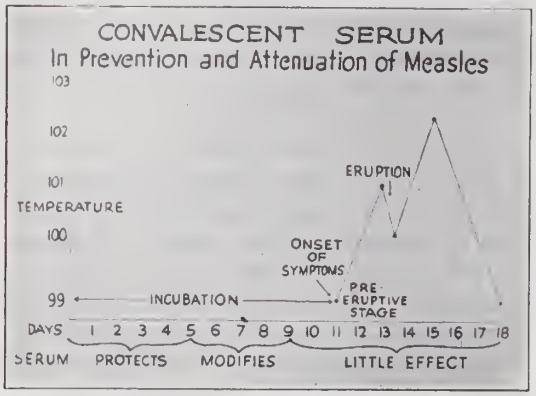
Measles convalescent serum has been second in demand by the physicians using immune serum. Nicolle and Conseil[3] in 1918, as well as Park and Zingher,[4] found convalescent measles serum to be of value. It had been used in the prevention, modification, and treatment of the disease. According to data presented by Kelly and Reite,[5] the attack rate of secondary contact cases in contagious diseases is greatest in measles, the percentage of which is 50.5.

This most prevalent children's disease carries with it a higher mortality rate than is commonly realized—0.2 to 1 per cent in the home and much higher in institutional cases.

The serum is obtained from adult convalescent measles patients up to the end of the first two months of their convalescence.

* From the Milwaukee Convalescent Serum Center, Columbia Hospital.

CHART I



It has been found that serum taken as late as this is as potent as that obtained earlier. Recent clinical investigation has sought to establish the minimum amounts of serum necessary to produce satisfactory results.[6, 1] The amounts recommended at the present time are as follows:

Infants and children under 3 years	5 cc.
Children over 3 years	7.5 cc.
Adults	10–15 cc.

The above quantities evidently allow an adequate margin of safety when the approximate time of exposure, intimacy of contact and the resistance of the individual have been estimated. Unfortunately we have no satisfactory test for susceptibility to measles. When complete protection is afforded in cases given too small amounts or too late, it is possible that the individual is immune, or was not intimately exposed.

It has been reported that serum given after the fifth and up to the ninth day of exposure more often modifies than prevents the development of measles (chart 1).** If one could individualize each case and have an accurate knowledge of the serum potency as well as all the factors, modification of the disease would be an easier problem. The danger of complications in modified measles is slight, recovery is certain, and a lasting, active immunity is produced by attenuated measles. Complete protection, if modification were possible, would be the end only in those cases in which the individual is unable to satisfactorily withstand the effects of a light attack of measles, or in institutions where widespread epidemics are best avoided.

Sixteen of our cases received adequate doses according to age and time exposure (between the fourth and ninth day). Only one (6.25 per cent) developed modified measles; the remaining fifteen cases were completely protected.

Modified measles has occurred as late as a year after the use of convalescent serum.[7] However, the accepted length of passive immunity produced by the use of convalescent serum is two to six weeks, so that it is possible for an individual to develop measles after subsequent exposures.

Measles serum has been dispensed for prophylactic use in one hundred forty-five children (7 mos. to 14 yrs.) exposed to measles for the first time.*** In an analysis of one hundred sixteen fully reported cases in which convalescent measles serum was used, there are two groups to be considered: those which received adequate (according to previous recommendations) amounts of serum (table 1) and those which received an insufficient quantity (table 2). Of the sixty-eight exposed cases receiving adequate amounts (1935–1936), fifty-six (82 per cent) were completely protected, eight developed mild cases, three moderate cases and one a severe case. There were no deaths or complications.

Table 2 shows the results obtained in those cases which received an inadequate amount of serum (according to previous recommendations). Thirty-one (64.5 per cent) out of forty-eight cases, among which there were two questionable exposures, developed no disease. Fourteen were mild cases and three were moderate; none were severe, nor were there any deaths or complications in this group.

The intimacy of contact should be taken into consideration. Of twenty-two cases known to be familial contacts, fourteen developed no disease, four were mild, three moderate, and one severe.

Karelitz and Schick[8] presented an excellent analysis of the results obtained by serum prophylaxis in institutions as compared to those obtained in home contacts. They found that the percentage of complete pro-

** Theoretical.
*** 90% under ten years of age.

tection obtained in institutional cases was much higher than that in home cases. Although our experience is not as great as theirs, we have noted similar results. Seventy-two children in St. Joseph's Orphan Asylum, Milwaukee, where ten cases of measles appeared, were immunized by Dr. G. F. Kelly on the second day of exposure. Complete protection was secured. The amount of serum used was less than the dosages recommended above: 5 cc. were used for children up to nine years of age, and 7.5 cc. for those from nine to fifteen years of age. The difference in hygienic factors of a private home and an institution, and the fact that exposure[9] cannot be accurately determined in an institution may account for some of the variation in the degree of protection between the two groups.

Treatment

Convalescent serum has been used to no great extent in the treatment of measles. In our records there are eleven severe cases, nine of which showed noticeable improvement within two days after receiving convalescent serum. In one case which was complicated by pyuria, and encephalitis, no improvement was noted. In another which was complicated by pneumonia, 60 cc. of normal serum were given and the result was considered good by the attending physician. In neither case did death occur. An excellent result was obtained when scarlet fever serum was used for a hemolytic streptococcic infection (possible scarlet fever) complicating measles. The late severe complications of measles are commonly due to the hemolytic streptococcus and should be helped through the use of convalescent scarlet fever serum.[10]

Measles serum is difficult to obtain since the disease is primarily one of childhood and it is preferable to use only adults as donors. Therefore, some of the administered serum had been prepared more than one year previously. There is a question as to how long convalescent serum retains its potency. Silverman[11] has stated that it is weakened after six months. Eleven out of sixteen individuals who received the recommended dosage of serum older than one year were fully pro-

TABLE 1

PROPHYLACTIC ADMINISTRATION OF MEASLES IMMUNE SERUM

(Recommended dosage; based on age and date exposed)

*Day exposed	Number cases	No disease	Mild disease	Moderate disease	Severe disease	Complications	Deaths
0	2	2					
1	17	12	4		1		
2	13	11	2				
3	7	6		1			
4	11	9	1	1			
5	6	5	1				
6	5	5					
7	1	1					
8	4	4					
9 plus	2	1		1			
Total	68	56	8	3	1	none	none

* Day after exposure that serum was given.

TABLE 2

Below recommended dosage

Day exposed	Number of cases	No disease	Mild disease	Moderate disease	Severe disease	Complications	Deaths
1	4	3		1			
2	1	1					
3	1		1				
4	9	7	2				
5	9	6	3				
6	6	5		1			
7	4	2	1	1			
8	8	2	6				
9 plus	6	5	1				
Total	48	31	14	3	none	none	none

tected, four developed mild cases and one a severe case. Twelve out of thirteen receiving less than the amount recommended were equally protected, and one had a mild form of measles. Although the strength of the serum is thought to be weakened after one year, it seems that it retains enough of its potency to be valuable. Larger amounts had best be used if the serum is older than one year.

Factors such as age, weight, general physical condition, presence of some other infection, intimacy of contact, length of contact and interval elapsing between the initial contact and injection should be considered in determining the necessary amount of serum to make an adequate dose.

Convalescent serum is not the only means which have been used to prevent and modify measles. Whole blood, normal sera, placental extract, and Tunicliff's goat serum have also been employed. Pooled normal serum is kept on hand at the Center for use in case of a shortage of measles convalescent serum. From records of Eley,[12] convalescent serum gave protection in 75.4 per cent of the cases in which it was used and normal adult serum in 56.4 per cent. Whole blood and normal serum should be used in much greater quantities to obtain results equal to those obtained through the use of convalescent serum.

An advantage in the use of human convalescent serum is the absence of serious local or systemic reactions.

Conclusions

1. Convalescent measles serum afforded complete protection to 82 per cent of the contacts receiving recommended doses and to 64 per cent to those receiving less than the recommended amount. (Total cases studied —116.)

2. The serum appears to have some therapeutic value. If a secondary hemolytic streptococcic infection has occurred, the use of convalescent scarlet fever serum is advisable.

3. The serum, although weakened after one year, retains enough potency to be of value if used in large amounts.

4. Pooled normal serum can be used for the same purpose as can measles serum if large doses are administered.

REFERENCES

1. Hardgrove, Maurice: The Use of Human Convalescent Serum in Infectious Diseases. Wisconsin M. J., **34**:812–816 (Nov.) 1935.
2. Fox, M. J., and Hardgrove, M.: Therapeutic Value of Convalescent Serum in Scarlet Fever. Proceedings of the Central Society of Clinical Research. J.A.M.A. **108**:586–587 (Feb. 13) 1937.
3. Nicolle, C., and Conseil, E.: Pouvoir Preventif du Serum d'un Malade Convalescent de Rougeole. Bull. et. Mem. Soc. Med. de Hop. de Paris, **42**: 336–338 (Apr. 12) 1918.
4. Zingher, A.: Convalescent Whole Blood Plasma and Serum in Measles. J.A.M.A., **82**:1180–1187 (Apr. 12) 1924.
5. Kelly, F. L., and Reite, Eleanore: Secondary Cases of Certain Communicable Diseases Among Non-Immune Family Contacts. Am. J. Pub. Health, **24**:1240–1243 (Dec.) 1934.
6. Levinson, S. O., and McDougall, C., and Thalhimer, Wm.: The Use of Convalescent Serum for the Prevention and Attenuation of Measles. Illinois M. J., **63**:258–265 (March) 1933.
7. Karelitz, S.: Measles Prophylaxis. New York State J. Med., **35** (Sept. 1) 1935.
8. Karelitz, S., and Schick, Bela: Epidemiologic Factors in Measles Prophylaxis. J.A.M.A., **104**:991–994 (March 23) 1935.
9. Freeman, R. G. and Freeman, R. G., Jr.: Measles in Private Practice as Modified by Use of Immune Serum. Arch. Pediat., **43**:563–570 (Sept.) 1926.
10. Cumming, James G.: Measles Virulence: Explanation of variation. Mil. Surgeon, **48**:681 (June) 1921.
11. Silverman, A. C.: Serum Prophylaxis in a Measles Epidemic. J.A.M.A. **91**:1786–1792 (Dec. 8) 1928.
12. Eley, R. C.: Control of Measles. New England J. Med., **213**:195–198 (Aug. 1,) 1935.

Extroversion of the Urinary Bladder; Report of Case*

By WALTER M. KEARNS, M. D.
Milwaukee

THE "turning inside out" of the bladder has been described under a variety of synonyms. Extroversion probably best denotes the occurrence. The route of the inversion may be indicated by the necessary qualifying words as urethral or fistulous.

Pousson in 1896 collected but twenty-two instances of urethral extroversion in the literature covering the preceding 110 years. All occurred in the female. In fourteen

* Read at the annual meeting of the Wisconsin State Urological Society, Marshfield, 1936.

Fig. 1. Original cystogram by Doctor Leaper showing regurgitation into both ureters of iodide solution. The irritable bladder promptly expelled the injected opaque medium.

cases the ages were noted as follows: Three over forty-five years; eight between twenty-five and forty years, two of these during pregnancy; three in children under fifteen years, Oliver observing the condition in a child of sixteen months, and Weinlechner, in one of nine months. Imerwol more recently reported the condition in a baby girl of six months.

Attesting to its rarity, recent texts and periodical literature are quite devoid of reference to the condition. Hinman's text alone discusses the subject quoting Pousson whose writing includes most of the pertinent facts and deductions. Bryan's case report in 1925 is the only recent addition.

Naturally the female bladder, on an anatomical basis, is more susceptible to evulsion than that of the male. No occurrence of complete extroversion is reported in the male. Among Pousson's twenty-one cases in the female the process was complete in fifteen. Gross stated "the probability is that a congenitally relaxed or weakened condition of the muscular fibres of the neck of the bladder and urethra is the essential cause of the trouble and that inversion of the bladder takes place during fits of crying, coughing, sneezing or straining. In all cases the urethra must be greatly dilated."

Among the etiological and associated factors are marked adiposity, diarrhea, and prolapse of the rectum and urethra. Complete extroversion has always been associated with prolapse of the rectum and vagina except in the patients of Albert and Imerwol.

The eversion may take place gradually or may be produced suddenly. Frequency of urination, difficult urination, sudden stoppage of the stream, or certain positions as

Fig. 2. Extroverted bladder; ureteral catheters, two in the right ureter and one in the left; and trophic ulcer over the left ischial tuberosity. Note the patient's bottle which she suckled and enjoyed throughout most of the examination.

Fig. 3. Right ureteropyelogram with three catheters in the right ureter. The catheter which entered the left ureteral orifice could be inserted only about 1.2 cm. through the everted part of the ureter and was then obstructed by the urethral narrowing and was withdrawn.

kneeling and squatting may initiate the onset. With the completion of the extroversion there may develop ischuria although this complication is not constant. The constricted circulation may result in gangrene of the bladder and this, together with urinary infection, has been the most common cause of death.

The diagnosis requires differentiation from the urethral prolapse of vesical tumor and from urethral tumor or cyst.

Treatment

Simple manual reduction has been an effective treatment in some instances. Immediately following the reduction the patient is promptly placed in the Trendelenburg position with the legs extended and adducted. Perineal pads and bandages were used by some of the older writers. If the bladder can be kept in position long enough to allow the urethra to contract, the likelihood of recurrence is diminished. The insertion of a pezzer catheter was used to advantage by Bryan and others although this instrument also has been expelled. A sound inserted well into the bladder and fixed to the thigh has been effective. The recently devised hemostatic rubber balloon attached to a catheter, if inflated in the bladder, should serve well in cases in which there is persistent recurrence.

Various surgical attempts at repair have been made. Pousson performed a plastic operation on the urethra at the meatus and vestibule to bring about narrowing. Paraffin has been injected around the urethra to narrow its lumen and increase resistance to expulsion of the bladder. Resection of the prolapsed part in incomplete extroversion has been carried out, but in extensive resection there is danger of injury to the ureter. It is surprising that suprapubic operation has not been attempted, or even suggested by any of the authors. It appears logical that suprapubic approach with fixation of the bladder to the rectal sheath offers the most assurance of permanent cure. This procedure will be carried out in the event of persistence of recurrence in our patient.

Report of a Case

An infant girl three and a half months of age was referred to me by Dr. W. E. Leaper of Green Bay on September 28, 1935. There was vomiting, fever, pyuria, and marked loss of weight. The baby was apparently normal from the time of her birth until one month previous to admission when she developed an intensive infection, temperature of 105° F., and respiratory and gastro-intestinal disturbances. When the acute sepsis was overcome, the baby refused some feedings and took only a part of other feedings with resultant loss of weight to approximately the birth weight of 7.5 pounds. One week prior to registration she again developed fever and marked pyuria together with gastro-intestinal disturbance. Doctor Leaper injected the bladder with sodium iodide solution for cystography (fig. 1). Bilateral reflux into megalo-ureters was demonstrated. Upon arrival in Milwaukee the pyuria and temperature up to 103° F. persisted. Physical examination revealed nothing of importance except marasmus and a large ulcer over the left ischial tuberosity. Neither kidney was palpable. Cystoscopy and ureter catheter drainage were decided upon.

Fig. 4. Cystogram made at re-examination on April 1, 1936, with the injection of 70 cc. of 20 per cent hippuran solution. Note the normal contour of the bladder, retention of medium in the bladder, and absence of any regurgitation.

The following morning when the baby arrived at the cystoscopy room it was reported that she had had several severe crying spells during the early morning and that a cherry-red swelling had appeared at the vulva (fig. 2). The mother stated she had never previously seen a similar swelling.

Close inspection revealed a mass at the vulva which was almost the size of a hen's egg. This was glistening and deep red in color, and had an irregular corrugated surface. The anal and vaginal orifices were normal. The tumor sprung from the urethra. Further inspection located on its surface the trigonal and ureteral orifices, identifying an extroverted bladder. Both ureteral orifices were pouting, giving evidence of early ureterocele formation. The openings were pin point in size. They could not be entered with the smallest filiform. These little teats were clipped off with a scissors and No. 6F catheters entered both orifices. On the right side the catheter passed readily 10 cm. into the ureter, but on the left it could be introduced only about 2 cm., where the constricting urethra apparently obstructed its passage farther into the ureter (fig. 3). Two more catheters were then passed 10 cm. up the right ureter (fig. 4). A free flow of pale, cloudy urine was obtained. Plain x-ray examination and injection of the catheter with 2 cc. of 20 per cent hippuran showed all catheters were located in the dilated right ureter.

After one hour of ureter catheter drainage the everted bladder mucosa appeared more congested. Our anxiety about the danger of gangrene of the bladder led us to remove the catheters and reduce the bladder. Replacing the bladder through the urethra was accomplished with some difficulty, but once reduced it remained in the normal position. On the third day a blood transfusion was administered. The temperature dropped gradually, the appetite improved, and there was improvement in the general condition. She was taken home from the hospital on the fifth day. During the ensuing six months, the extroversion recurred on several occasions with the mother reducing it promptly with little difficulty.

On April 1, 1936, the baby was brought to the office for re-examination. The improvement was remarkable. The weight had increased from approximately 7.5 pounds to 20 pounds during the six months that had elapsed, the ulcer on the buttocks had healed, the appetite and digestion were normal, and the baby appeared normal in every respect. The mother refused to take the infant to the hospital and wished to return home the same evening, fearing that examination might cause relapse. Consequently our re-examination was confined to urinalysis, cystoscopy, intravenous urography, and cystography in the office. The urine had lost nearly all of its cloudiness and contained no albumin or sugar. The pus in the sediment was rated a scant 1+ and the Gram stain showed a few colon-like bacilli. Cystoscopy revealed a normal bladder with the ureteral orifices normal in position, appearance, and activity. The internal orifice gave no indication of relaxation, appearing quite normal and regular. The intravenous urograms gave practically no information, the shadows being too pale and indefinite to determine any change in the caliber of the pelves or ureters. A cystogram made after the injection of 100 cc. of 20 per cent hippuran into the bladder showed a normal contour and, to our amazement, no regurgitation into either ureter (fig. 4).

Conclusions

1. Our patient, an infant girl three and a half months of age, represents the youngest recorded instance of complete urethral extroversion of the bladder. No accompanying anal or vaginal prolapse occurred.

2. The phenomenal appearance of the extroversion in this little patient immediately prior to a scheduled cystoscopy revealed the cause of the infected megalo-ureters,—bilateral ureteral stenosis. It afforded an opportunity to correct, by a simple clipping with scissors, stenosed ureteral orifices which could not have been corrected cystoscopically in this patient.

3. There followed a remarkable gain in general health and improvement in the urinary infection.

4. The several recurrences of extroversion have been easily reduced manually. There is every indication that with the lessened irritability of the bladder and lessened frequency of urination and straining that recurrences will be diminished. It is hoped that with growth and development further instrumental or surgical interference will be unnecessary.

Transurethral Prostatic Resection For Bladder Neck Obstruction*

By ALF H. GUNDERSEN, M. D.
La Crosse

IN 1834 Guthrie[1] for the first time in medical history attempted to relieve bladder neck obstruction by a transurethral method. He devised a metal catheter in which there was concealed a knife. With this instrument he incised the vesical orifice. He described the operation as "a division of the bar at the neck of the bladder"; thus came into urological literature the words "bar" and "median bar." He actually did a sphincterotomy by sense of feel, but made no provision for hemorrhage control. For hundreds of years cystotomy had been done suprapubically for relief of bladder neck obstruction; in fact, it had been described by Rossitus in 1590. Perineal urethrotomy had also been practiced for centuries for the removal of bladder stones. Samuel Pepy in the 17th century described vividly his personal experience as a subject. Exactly 100 years ago (1837) Mercier[2] constructed a metal catheter in which was fashioned a window into which the obstructing prostate could be engaged. He then inserted a tubular metal knife actually to cut out tissue.

Bottini of Pavia in 1873 substituted a galvanic current for the knife and thus attempted to destroy by heat the obstructing prostate. Freudenberg[3] of Berlin improved further this instrument by creating a type of lithotrite with two blades which were connected with the galvanic current. He came to New York in 1897 with his instrument and demonstrated its trouble-making possibilities.

All these instruments were doomed to failure. They violated time-honored principles of surgery; namley, adequate vision and adequate provision for hemorrhage control. They also violated a basic principle in urological surgery: that if any operation or therapeutic measure is to be successful in the urinary passages, free and adequate drainage must be created. The instruments conceivably could remove the obstructing tissue situated in the bladder neck and bring about relief, but if there were intraurethral obstruction present, failure to cure, and ofttimes a tragic outcome, would be inevitable if pyogenic organisms had been introduced. The human organism is particularly vulnerable to infections in the deep urethra, as in the cortex of the kidney, especially in the absence of good drainage. Von Dittel[4] refused to accept the transurethral methods and continued to advocate cystotomy. He finally (1885) tore off a median lobe through a suprapubic sinus. He was therefore the first to remove bladder neck obstruction by open surgery.

The early attempts consisted in removing only the intravesicular portions of the prostate. During the following ten years surgeons became bolder and, finally, Fuller,[5] in New York, and Freyer,[6] in England, advocated complete enucleation. The mortality rate was necessarily high and, therefore, surgeons during the next thirty-five years bent all their efforts and ingenuity on improvements which would make the operation safer. A bitter controversy arose between the advocates of perineal excision and suprapubic enucleation. Because of better and

* Presented before 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, September, 1936.

more dependent drainage, more patients survived the perineal operation. But, as has been said, (because of incontinence and persistent urinary sinuses) many of those who survived wished they were dead.

Thus we see that efforts to improve the mortality rate became for many years the only contribution to the prostatic problem except the work of Young,[7] Braasch,[8] and Caulk.[9] Young[7] devised, in 1911, a prostatic bar excisor which was soon dubbed "the punch" by his house staff. It made no provision for the control of hemorrhage and vision was imperfect. Braasch[8] in 1918 improved the instrument with better vision, but the control of bleeding was an unsolved problem. Caulk[9] in 1920 substituted a platinum cautery blade for the cold steel tubular knife and thus controlled hemorrhage. A dry field was necessary, however, and therefore vision was highly imperfect. Much credit must go to Caulk for keeping before the profession a method of correcting prostatic difficulty by removing the obstructing tissue rather than the entire gland.

I used the instrument in twenty-one carefully selected cases with some very gratifying results. But it was always with considerable trepidation because of inadequate vision, fear of not having removed all the obstruction and, finally, the deep eschar produced by the red-hot blade.

In 1930 I was fortunate enough to attend the meeting of the American Medical Association at Philadelphia. Before the urological section, Davis[10] of Charlotte, North Carolina, presented his paper on the transurethral excision of the obstructing portion of the prostate, and reported his first 200 patients successfully operated on with a new instrument using as a knife an endothermia cutting loop. I recognized that here was something new and worth while; an instrument which fulfilled all the principles of good mechanics and surgery. Vision was perfect; control of hemorrhage was within the means of technical skill; all obstructing tissue could be removed, and asepsis could be reasonably carried out.

Stern[11] of New York must be given the credit for constructing the first instrument; however, modifications by Davis[10] and McCarthy[12] have become important contributions. About the same time, Braasch and Bumpus together also devised a resectoscope, using a different principle—a cold-cutting tubular knife. A multiple-pronged electrode was used to coagulate mildly the tissue to be excised (Tyvand).[13] Thompson has since improved the instrument, permitting better vision. Caulk, in the meantime, has also modified his instruments to greater operative advantage. We now, then, have three instruments on the market; each has its many champions. Personally, I believe it makes little difference what type of instrument one uses, provided one becomes expert in its method of operation.

Early Experience

Early in 1931, I acquired a McCarthy instrument and an electrical-cutting unit. Those first six to twelve months stand out to me now as a nightmare, full of tragedies and heartaches. Every conceivable type of misfortune and complication came my way. These were in the nature of bladder perforation (two cases), pyelonephritis and sepsis (four cases), hemorrhage and death (one case), and a multiplicity of minor difficulties, such as prolonged frequency and pyuria after operation. In the meantime, new and improved electrical-cutting units came on the market which were of great help; a new retrospective lens was devised which gave the operator a greatly improved vision of the intravesicular disease. Finally, all over the country men were learning more and more what was necessary for success, and through the exchange of ideas we all profited. So many thousands of patients have been successfully operated transurethrally during the last six years that we can now draw certain conclusions in regard to the various phases of the prostatic problem. Remarkably enough, men who have done a great number of resections have come independently to almost the same conclusions.

Pathology and Technique

It matters very little to the skilled operator what type of prostatic disease exists. The contracted sclerotic bladder neck with a true fibrous median bar lends itself admirably to resection. But because of the very short prostatic urethra and small prostate,

extreme care must be exercised not to cut too far down the urethra nor too deep in the bladder neck. Likewise, the ball-valve type of mid-lobe rising from the submucous glands of Alberrans is technically simple to excise. The horsecollar-like median lobe rising from the posterior commissural subcervical glands is even easier to remove because it is fixed and engages in the loop with greater ease. Contrary to the prophecy of pathological physiologists (Randall),[14] the results obtained in resecting this type of hypertrophy are equally as good as in the "ball-valve mid-lobe" operations. The very large lateral lobes alone, or associated with mid-lobes, whether they herniate through the internal sphincter or are localized to the deep urethra, require greater skill than any of the previously mentioned types. The portions projecting intravesicularly near the anterior commissure require painstaking care, because it is difficult to engage the tissue in the cutting loop. By manipulating the beak of the instrument in a circular fashion over the side operated on, it is frequently possible to get the tissue under the end of the instrument to facilitate cutting and more successful removal. Frequent use of the retrograde lens in such cases reassures the operator of complete removal of such types of enlargements. In the very large glands it is important to cut away the intravesicular portions first, then one lateral lobe at a time. One must not go from one side to another without first having control of all bleeding. To have troublesome hemorrhage from many portions of a large field unnecessarily prolongs the operation even in the most experienced hands. It is now generally conceded that the average transurethral procedure should not last more than one hour. Any increase in time leads not only to greater shock to the patient but, because of prolonged ischemia and trauma to the urethra, postoperative strictures may occur. It is better to resect the very large glands in two or even in three stages than to prolong the operation. We have long known that the second or third resection is tolerated even better than the first.

Finally, in carcinoma of the prostate, it is generally conceded that resection is the operation of choice, excluding those rather rare cases in which the disease is limited within the surgical capsule. There is still a place for total perineal excision of this type of gland. Unfortunately, the disease is without symptoms and has usually gone far beyond the reaches of a scalpel when the patient presents himself for treatment. Because of the fixed position of the carcinomatous gland, resection is relatively simple. The cutting loop travels with great ease through the obstructing cancer tissue, and bleeding is relatively very slight. The disease frequently destroys the usual landmarks present in the urethra; therefore, utmost care must be observed not to injure the external sphincter. Transurethral resection has made it possible for the majority of patients with prostatic cancer to live a fairly comfortable life, while formerly they were doomed uniformly to suprapubic drainage with all its disagreeable features.

Preoperative Drainage

It has been dogma for years that drainage either by catheter or cystostomy must necessarily precede prostatectomy. In the presence of impaired renal function caused by back pressure, improvement after drainage is spectacular and must be carried out before resection is attempted. Furthermore, in the presence of infection with fever, drainage must be instituted. Indiscriminate catheterization or allowing a catheter to remain in the urethra can only do harm in the patient with good kidney function. It has been shown by Cabot and Meland[15] that after a catheter has remained in the urethra, there comes a time, usually the fifth or seventh day, when it often serves to irritate and aggravate the usually low-grade infections commonly present in the hypertrophied glands of old men. They begin to have fever and become mildly toxic. I soon learned that the patients with good kidney function who had never been catheterized did very much better than similar cases drained with a urethral catheter. Resection carries with it very little shock to the cardiorenal mechanism and therefore can be performed without drainage in the large majority of cases (in this series of 100, 76 per cent).

Indications

Transurethral resection as an operation has had and still has its violent opposition. This is quite natural, since it is a radical departure from our previous methods. Difference of opinion still exists among genitourinary surgeons in regard to the very large glands when the removal of thirty or more grams of tissue is necessary to relieve obstruction. In my own experience I must admit that I have not done an enucleation in the past two and a half years. The larger the gland, the greater is the margin of safety. To be sure, it has been necessary to do two or three, and in one case, four resections, to effect a cure. However, subsequent operations, as stated, are easily tolerated. Impenetrable strictures are, of course, a contraindication, as is also the inability of the patient to make a sufficient "leg spread" to allow the mechanics of the operation to take place. From my own experience, which constitutes some 500 operations, I unhesitatingly say that the method is applicable and is the one of choice in my hands in any case in which the resectoscope can be passed. The operation can be performed with relative safety on the patient who is in extremely poor general condition. I have operated successfully on patients with hemiplegia, advanced hypertension, coronary sclerosis, heart block, advanced arteriosclerosis, and all the ailments of the aged, including large carcinomata with metastases; these are my most grateful patients.

A patient who has a large distended bladder of long-standing with elevated blood chemistry must have slow decompression. But as Thompson has pointed out, resection can be performed successfully on patients with highly elevated blood chemistry provided that the daily volume of output is abundant and the nitrogen retention products are reasonably stabilized.

Four Requirements

In my own experience I have found four very fundamental requirements necessary for success:

I. Adequate Removal of All Obstructing Tissue

In order that drainage from the bladder can be free and uninterrupted, a complete funnel must be made of the bladder neck. Overhanging portions of the herniating lateral lobes in the anterior portion of the internal sphincter must be removed; these are most commonly overlooked and are for the occasional operator most difficult to cut away. In the prostatic urethra the floor of the bladder must be made flush with the floor of the urethra; likewise the lateral lobes projecting into the posterior urethra must be cut away. In order that the remaining portion of the lateral lobes will not bulge again into the urethra, I try to create a lateral concavity. Resection of the lateral lobes must most often be carried down to the verumontanum. In my experience, incomplete removal is the most common cause of failure. A large raw surface in the neck of the bladder with obstruction lower down in the prostatic urethra is a most hazardous condition for the patient. When the bladder fills, the pressure used in voiding tends to inject urine (ofttimes containing bacteria) directly into tissue spaces, lymphatics, and capillaries. I am certain in my own mind that this was the cause of death in my original patients who died of sepsis.

II. Adequate Control of Hemorrhage

In our early experience operators feared deep sloughing and infection incident to coagulation. I personally have never been convinced of this hazard, provided that good drainage from the bladder has been created by good funnelization. In severe bleeding, to improve the clarity of vision, it is often helpful to increase the pressure of inflowing water simply by raising the water reservoir. With very light bleeding (venous) the reverse is true. I have made it a rule that the irrigating fluid must come back almost like tap water or a very pale pink before the patient leaves the operating room. Futhermore, one must not allow the patient to leave the operating room before the blood pressure is restored to reasonable levels. An imperfectly sealed artery may not bleed at 90 or 100 mm. of mercury, but at 150 to 170 mm. it may fill the bladder with clots in a surprisingly short time. Continuous irrigation systems and pressure bags have not been necessary.

III. Asepsis

We have long made it a rule that complete aseptic technique must be carried out in preoperative, operative, and postoperative care. One must make every effort to avoid introducing new organisms into the bladder to which the patient has no immunity. In the preoperative care, we avoid as far as possible, unnecessary catheterization and cystoscopic examinations. One catheterization is usually done to determine the amount of residual urine. This is carried out under very rigid aseptic technique after first irrigating the anterior urethra and with very liberal use of a lubricant jelly. However, if the patient has symptoms severe enough to warrant operation and has a palpable large gland with a normal blood chemistry, I prefer not to catheterize him. If drainage is necessary in the presence of a damaged renal mechanism, a No. 14 or No. 15 French catheter is inserted under similar aseptic technique. The catheter is connected with a sterile tube and placed in a sterile covered bottle, the connection is covered with a sterile towel, and thus a closed sterile system is accomplished. When a change of bottles is necessary, the end of the tube is simply picked up with a sterile clamp and reinserted into the new sterilized bottle. In a recently infected patient with fever, the operation is postponed until his temperature has been normal for at least three days.

During the operation itself, one can hardly hope to keep as clean as in other surgical procedures. However, I am convinced that careful preparation of the genitalia with soap and water, irrigation of the urethra, the use of tincture of metaphen, wearing of masks, careful draping of the patient, and thorough chemical sterilization of the instruments and electrical cords, all help to prevent the introduction of pathogenic organisms. During the operation a nurse keeps one hand over the suprapubic area to inform the operator of bladder distention. Rupture of the bladder or of a thin-walled diverticulum is possible without this precaution. It also serves to prevent reflux of bladder fluid (ofttimes infected) upward into the kidney.

IV. Postoperative Care

As Bumpus has so frequently pointed out, the postoperative care of the catheter is of greatest importance. It must never be allowed to obstruct. If clots should form, the catheter becomes occluded. This sets up the most vicious train of events; the bladder begins to distend and as a result the cut surface expands, causing it to bleed further; the bladder contracts in an effort to expel its content, and in so doing causes more sealed vessels to burst open. Soon the bladder is half way to the navel with blood clots. A second anesthetic then becomes necessary for evacuation of the clots and stoppage of the bleeding. Irrigation of the bladder for the prevention or removal of clots in my patients is seldom necessary. Unless a well-trained person is at hand, one risks introduction of new organisms and subsequent infection. The bladder must be kept at rest. The only positive way to avoid plugging of the catheter is to stop all bleeding at the time of operation. Thus alone can one be sure of free and adequate drainage, which is so very important to success.

I made the very unfortunate error in using too large a catheter in my early cases. The urethra will not tolerate a large tube; strictures and periurethral abscesses may follow. The purulent material produced by the mere presence of the catheter must be allowed to escape. In my experience a French No. 24 is most suitable. It is usually removed on the second postoperative day provided that the patient's temperature has returned to normal. After removing the catheter, the patient is encouraged to drink water abundantly. If he voids freely and easily, and his temperature remains normal, he is not catheterized again until he is ready to leave the hospital. In the presence of a normal convalescence, I believe one only jeopardizes the patient's welfare by indiscriminate, frequent catheterizations. The danger of introducing foreign bacteria into a bladder when there is a large open wound at the neck is to me very real. I have seen repeatedly a normal convalescence change to a septic one because of the desire to learn the emptying power of the bladder. However, if the patient does not void freely and there

is a rise in temperature, the catheter is reinserted and allowed to remain in the bladder for a few more days.

One must always remember that aged people never do well if their bed convalescence is prolonged. Our patients are in Fowler's position four hours after the operation and are out of bed the following day. On the day of removal of the catheter (second or third) they are encouraged to walk about. The very debilitated patients are given repeated supportive blood transfusions, as well as brandy, fruit juices, and food by mouth. I believe that urinary antiseptics are of value. On admission to the hospital, ammonium chloride and methenamine (urotropin) are given routinely. This is continued for at least three weeks after operation. The possibility of encrustations forming over the operated field is reduced. I have had no success with the ketogenic diet in the aged patient with this condition. Methylene blue tablets by mouth (1.5 gr.) seem to reduce somewhat the irritability of the bladder after operation; its administration has become routine.

Conclusion

There is probably no operation in surgery in which a successful result depends so much upon the skill and experience of the operator. One must first acquire knowledge of the condition of the bladder neck as seen through a cystoscope; this comes only with experience. There is only one way to learn the operation and that is to do it; infinite care and patience are necessary. In the hands of the occasional or unskilled operator, resection becomes extremely hazardous to the patient; he stands a much better chance of ultimate recovery and cure by the old method of suprapubic drainage and enucleation or perineal excision. But to the experienced, resection is relatively a benign procedure; it offers to the aged man the possibility of cure without the long hospitalization and the greater danger of prostatectomy.

REFERENCES

1. Guthrie, G. J.: On the Anatomy and Disease of the Neck of the Bladder and of the Urethra. London: Burgess and Hill, 1834, p. 252.
2. Mercier, Louis-Auguste: Recherches sur le traitement des maladies des Organes Urinaires. Paris:Labé, 1856, p. 623.
3. Freudenberg, Albert: In: King, W. H., Electricity in Medicine and Surgery. New York: Roericke & Runyan Co., 1901, 205 pages: 296 pages.
4. von Dittel: Blaseenpunction und nach trägliche Resection des mittleren Lappens wegen hochgradiger Hypertrophie der Prostata. Wien. med. Bl. 8:270–272, 1885.
5. Fuller, Eugene: The Question of Priority in the Adoption of the Method of Total Enucleation Suprapubically of the Hypertrophied Prostate. Ann. Surg., 41:520–534 (April) 1905.
6. Freyer, P. J.: A New Method of Performing Prostatectomy. Lancet, 1:774–775 (March 17) 1900.
7. Young, H. H.: Operations on the Prostate. In: Young's Practice of Urology. Philadelphia; W. B. Saunders Co., 1926, p. 483.
8. Braasch, W. F.: Median Bar Excisor. J.A.M.A., 70:758–759 (March 16) 1918.
9. Caulk, J. R.: Infiltration Anesthesia of the Internal Vesical Orifice for the Removal of Minor Obstructions: Presentation of a Cautery Punch. J. Urol., 4:399–408, 1920.
10. Davis, T. M.: Resection of Prostate Gland Obstructions with Stern's Resectoscope Equipment. South. M. J., 22:528–534 (April) 1929.
11. Stern, Maximilian: Resection of Obstructions at the Vesical Orifice. J.A.M.A., 87:1726–1729 (Nov. 20) 1926.
12. McCarthy, J. F.: The Prostate at the Crossroads. Am. J. Surg., 15:435–440 (March) 1932.
13. Tyvand, R. E., and Bumpus, H. C., Jr.: A Simple Technique for Prostatic Resection. J. Urol., 27:503–504 (April) 1932.
14. Randall, Alexander: Presidential Address. J. Urol., 28:127–132 (Aug.) 1932.
15. Cabot, Hugh, and Meland, E. L.: The Problem of Drainage in Preparation for Operations for Prostatic Obstruction. Proc. Interstate Postgrad. Med. Assn. N. Amer., 1932.

Tuberculosis; The Clinical Phase*

By H. M. COON, M. D.
Statesan

THE position, as well as the viewpoint of the clinician in regard to tuberculosis has changed of necessity to a great degree in the last two decades. Twenty years ago he stood alone with his stethoscope and his hands as his chief diagnostic aids. His only laboratory support was the examination of the sputum; his only treatment was bed rest to which was added occasionally artificial

* Read in a symposium before the 13th annual meeting of the Section on Radiology, State Medical Society of Wisconsin, Kenosha, 1936.

pneumothorax. The use of tuberculin as a diagnostic measure was not a safe procedure, and it was being abandoned as a method of treatment. X-ray plates were available only in the large teaching and hospital centers, and Dunham's stereoscopic films were not known. On the surgeon's list of contraindications for operative procedures, tuberculosis led in importance. The blood count was of no value, leukopenia was a part of tuberculosis, with relative lymphocytosis, and Medlar's lymphocytic-monocytic ratio was unheard of, as was Westergren's sedimentation rate. In contrast, today we have the Mantoux or von Pirquet test for tuberculosis and stereoscopic examination to corroborate the diagnosis and establish the extent of the involvement. The laboratory furnishes, in addition to the examination of the sputum, valuable prognostic findings in the blood count and the sedimentation rate. And in the matter of treatment, there is the widespread use of collapse therapy, which includes the temporary forms, pneumothorax and phrenicotomy, and also the permanent types, phrenicectomy and thoracoplasty, with lobectomy and pneumonectomy as further possibilities.

This apparently leaves the clinician out of the present picture altogether. However, he and his stethoscope still have a very definite place and function. Treated tuberculosis shows itself by peculiar shadows on the x-ray film that have to be valued clinically, the surgeon's enthusiasm must be curbed and directed at times, laboratory reports must be interpreted, and above all, the patient still has to be treated. The clinician is grateful indeed for the aids his surgical, x-ray, and laboratory colleagues have developed for treating properly the tuberculous patient. In contrast to twenty years ago, the patient may look forward more hopefully to the resumption of a normal life and normal activities.

In order to develop the clinical part of this discussion, a critical analysis of the records of the last 100 patients admitted to the sanatorium in which I practiced (River Pines, Stevens Point) is presented. There has been no attempt to select cases, but the data on readmissions of these patients have been omitted.

Classification

Severity of Tuberculosis. On admission the condition of these patients was first classified, in accordance with the standards of the National Tuberculosis Association, as follows:

	Per cent
Incipient	23
Moderately advanced	28
Far advanced	46
Nontuberculous	3

The obvious comment in regard to the high percentage of far-advanced cases immediately presents itself. On the other hand, the fact that as many as 23 per cent came under the incipient classification is also noteworthy. Ten years ago this figure would have been closer to 10 per cent. This increase unquestionably is due primarily to the increased use of the x-ray examination as a general diagnostic measure. It is not necessary at this point to discuss the matter of positive x-ray findings in early cases of tuberculosis, with the absence of positive physical findings, except to emphasize that they exist.

Sex. Forty-eight of these patients were males and fifty-two females. This might be surprising as it is accepted that the incidence of the disease is usually higher in the female sex, but it is also true that women are not so quick to accept sanatorium treatment as are men, probably because of supposed domestic necessity.

Age.	*Male*	*Female*	*Total*
Below 10 years		2	2
11 to 20 years	4	10	14
21 to 30 years	19	23	42
31 to 40 years	9	13	22
41 to 50 years	5	2	7
51 to 60 years	7		7
Over 60 years	4	2	6
	48	52	100

Readmissions. For thirty-two of these patients, this was not their first admission to a sanatorium, but there are several explanatory factors to be noted. In the first place, this covers a transition period in the sanatorium. It had formerly been a strictly private institution, but changes were made so that public patients were admitted. This resulted in the transfer of local patients from other sanatoria. In addition, surgical procedures were not carried out in this in-

stitution, and when a patient returned after surgery, he was classified as a readmitted patient. Of this number, eleven were actual readmissions of former River Pines patients, one of whom returned following other hospitalization as a result of a broken leg, another after a period of ten years at home, a third had luetic complications for which he sought treatment, and the other eight were frankly relapses.

Present Status. Twelve patients of this group are dead, twenty-six have returned to their homes and are at work, seven have been discharged as improved, eight were discharged as unimproved, and forty-seven are still in the sanatorium. Of the last group it appears inevitable that eight will not be able to make a recovery.

Complications. At the time of admission, two patients had diabetes as a complication. Both of these were women and both were over fifty years of age. One is dead. The other is free of sugar as to her urine and is making satisfactory pulmonary progress, but her blood sugar is maintained at 200 mg., in spite of dietary control and a small amount of insulin. Twelve had pleurisy with effusion, four of which were due to previous surgical measures. Three developed effusion after admission, two of these during the course of their pneumothorax treatment. In two cases in which fluid was present on admission it became purulent later, one of these patients dying in spite of what seemed to be adequate drainage. Two patients had mental disease as a complication, but since the River Pines Sanatorium is not equipped to handle maniacs, they had to be transferred. Hypertension was noted in seven patients, that is, a systolic pressure over 160 mm. of mercury. In one patient the hypertension overshadowed the tuberculous condition.

Of the tuberculous complications noted on admission, twelve had peritoneal involvement, four had pelvic involvement (females), and three had genito-urinary tract infections (males). The last figure does not take into consideration the fact that 20 per cent of the urinalyses on admission showed the presence of albumin and an increase in red and white blood cells. Four patients had definite evidence of meningeal infection. One developed osteomyelitis of the tibia after admission, this being the first case of tuberculosis of the bone seen in this institution for over ten years.

Type of Treatment. Thirty-one patients needed nothing more in the way of treatment than bed rest, while forty-four cases, because of the extent of the involvement, nothing else in the way of treatment was possible. Bed rest was further supplemented in seven cases by phrenic interruption, four of which were permanent in type and three temporary; in eight cases by pneumothorax; in five cases by thoracoplasty, and in five other cases by aspiration or drainage operations. Previous to admission here, two patients had been treated by pneumothorax, four by phrenic sections, seven had had first pneumothorax and then later phrenic section, two had had pneumothorax and pneumolysis, and two had had thoracoplasty.

Report of Cases

In order to illustrate the particular need for the various types of treatment in the individual patients, brief clinical resumé will be given, beginning with the cases of pneumothorax.

A male, aged thirty years, had had a series of hemorrhages four weeks previous to his admission, and there was a history of repeated colds during the previous six months. Cough and expectoration were present, but there were few toxic signs and the history was short enough so there had been no great nutritional disturbance. There was no family history or contact history of tuberculosis. The physical findings were definite,—medium and fine rales over the entire right upper lobe, with a questionable shift over to the left interscapular area. The laboratory findings were as follows: The sputum was positive. Blood count showed the hemoglobin to be 75 per cent, red blood cells, 4,200,000, and white blood cells 9,250, with 3 per cent stabs, 53 per cent segmentals, 42 per cent lymphocytes, and 2 per cent monocytes. Sedimentation rate was 19 mm. in sixty minutes. The films showed the upper right involvement to be fairly soft but definitely fibrous without gross cavitation. The base was free of adhesions, and the left side showed nothing more than beginning infiltration in the first interspace area. We had then a diffuse, not too heavily fibrosing, unilateral lesion in a young male who had not had a chance to develop much in the way of toxic findings. However, the

lesion was extensive enough so that the question of its being able to resolve without some collapse therapy had to be considered. Any type would perhaps have been satisfactory, but this was an ideal case for pneumothorax.

The second patient, a male thirty-four years old, had had blood-streaked sputum two days before his admission. The slight cough that produced this expectoration was his only complaint. There was a history of involvement three years previously, a cavity in the right middle lobe which cleared up very easily with only bed rest. Physical examination was not made at the time of admission because of the history of bloody sputum. Examination of the sputum was positive. Blood count showed the hemoglobin to be 80 per cent, red blood cells 4,800,000, white blood cells 6,900, with 7 per cent stabs, 55 per cent segmentals, 32 per cent lymphocytes, and 3 per cent monocytes. The film showed infiltration with a small cavity in the right subclavicular area and also the fibrous remains of the old lesion of the middle lobe on the right. The hilum was rather soft, and there was a definite Ghon tubercule in the lower left side and a well localized lesion in the upper lobe with no great amount of fibrosis. There was also an economic factor involved, as the patient wanted to get back to work quickly. A pneumothorax was in order; however, there were some reservations,—the right diaphragm was high and there were no doubt adhesions from the older lesion, but it was best at least to try to get an adequate collapse with air.

Next we will consider phrenic interruption as a means of collapse.

The first case is that of a twenty-six-year-old man who two weeks previous to admission felt that he was catching cold. He had cough and expectoration accompanied by chills, fever, and night sweats. His past history included pleurisy with effusion at the age of twelve years. Physical signs were marked at the left base, both anteriorly and posteriorly. In the posterior area the bronchial breath sounds and the character of the rales led me to expect cavitation, but as usual the films cleared up the physical findings and showed them to be due to compression of the larger bronchial branch. The examination of the sputum was negative. Blood count at a commercial laboratory showed white blood cells 11,000, with polymorphonuclear cells 82 per cent and lymphocytes 14 per cent. The sedimentation rate was 16 mm. in sixty minutes. The films showed the spread from the left hilum, and with a negative sputum the differential diagnosis in this case might have been difficult. However, temporary phrenic section was recommended and accepted, and a later film showed the clearing that accompanied this procedure. The blood picture after the surgical procedure is of interest. The white blood cells numbered 18,800, with 34 per cent stabs, 46 per cent segmentals, 5 per cent lymphocytes, and 11 per cent monocytes. This is not a particularly good count, but at the time this last film was made the white blood cells numbered 7,800, with 11 per cent stabs, 43 per cent segmentals, 33 per cent lymphocytes and 9 per cent monocytes. The sedimentation rate was 2 mm. in sixty minutes. Lest there be any question as to the presence of tuberculosis, one may refer to a film of four years ago, at which time there was a definite lesion on the right, with positive sputum. Temporary phrenic section was chosen in this case because the lesion had not had opportunity to make very great progress. There was no breaking down of the parenchyma and yet the condition was an acute affair; however, the rest obtained was adequate.

The second patient under this heading also presented a rather acute picture. A male twenty-six years of age came in complaining of cough, chills, sweats, and fever that began two weeks previous to admission. The fever was sufficient to produce a definite toxic psychosis at this time. There was a definite family history, one sister having had an active pulmonary condition. On physical examination the findings were confined to the right lower lobe with questionable signs of cavitation in the interscapular area on that side. Examination of the sputum was positive. Blood count showed the hemoglobin to be 77 per cent, red blood cells 4,600,000, white blood cells 7,400, with 4 per cent juvenile cells, 42 per cent stabs, 37 per cent segmentals, 7.5 per cent lymphocytes, and 8 per cent monocytes. The sedimentation rate was 26 mm. in sixty minutes. The film shows the complete involvement of the right lower and middle lobes, with cavity in the apex of the lower lobe. Off the left hilum there were marked soft changes, but on repeated physical examination rales were absent so a permanent phrenic section was suggested. Following this the sputum became negative, and the blood count changed to the following: White blood cells 6,200, with stabs 4 per cent, segmentals 70 per cent, lymphocytes 16 per cent, and monocytes 5 per cent.

In regard to the more radical type of surgical procedure, the thoracoplasty, two cases are presented.

The first patient, a female thirty-two years of age, had as her only complaint a cough that was productive of persistently positive sputum. She was in excellent general condition, her nutrition was good, and she had been doing office work for over two years. The fact that her sputum was consistently positive, and her knowledge of the dangers that attend this condition were her only reasons for seeking admission to the sanatorium. Of course, she had an old history dating back thirteen years, during which time her left chest had borne the brunt of her troubles,—hemoptysis, pleurisy, and at one time a spontaneous pneumothorax. There was also a definite family history, her mother and one brother having had tuberculosis. The physical findings were very easy to determine,—gross cavitation in the left upper lobe and a marked conduction of signs to the right, with the left lung presenting the appearance in the film of a totally fibrosed lung, except for the bronchial dilatation in the upper lobe.

The mediastinal adhesions were responsible for the carrying through of the signs to the right; the appearance of the lung was good considering the history. The blood count was not significant. The hemoglobin was 72 per cent, red blood cells 4,700,000, white blood cells 8,100, with 14 per cent stabs, 55 per cent segmentals, 25 per cent lymphocytes, and 5 per cent monocytes. The sedimentation rate was rapid, 18 mm. in sixty minutes. This is the type of a chest that will give an excellent result with the removal of all the ribs. The cavity was above, the rest of the lung was fibrosed, and the right side was reasonably clear at this time. The patient was in excellent condition to have this procedure. On the other hand, if thoracoplasty were not undertaken, there would unquestionably be a spread to the right side.

The second patient on whom a thoracoplasty was performed, a male of twenty-six years, also had an old history of tuberculosis. The condition was first diagnosed five years before admission. Its onset was insidious, a sputum examination finally establishing the diagnosis. Heliotherapy was used a bit too enthusiastically, and a series of rather severe hemorrhages resulted. Peritoneal involvement developed during the second year, and he finally sought sanatorium treatment. One year previous to admission pneumothorax was started because of further hemoptysis. A pleural effusion that became purulent ended the pneumothorax, and a permanent phrenic section was done six months previous to his admission. There was a definite history of infection in the family. His appearance was typical of the long-time "cure-taker,"—thin skin, long fingers, curved nails, bright cheeks and eyes, tall and not well nourished, a thin, flat, long chest, and also the great desire to get well, but with very little effort on his own part. The sputum was negative and the blood count not interesting. The hemoglobin was 80 per cent, red blood cells 4,700,000, and white blood cells 8,300, with 2 per cent eosinophiles, 12.5 per cent stabs, 56.5 per cent segmentals, 20 per cent lymphocytes, and 10 per cent monocytes. The films showed the involvement of the left side with the right side reasonably clear. In this case there was old, thick, dense pleura, and the possibility of getting proper collapse was not good. However, it was the recommendation of choice in this case.

The cases presented so far have been clear-cut in nature, and now controversial cases are outlined.

The first patient was a woman thirty-two years of age, who came in with a history of hemorrhage accompanied by pain in the left upper chest at the time of her menstrual period two weeks previous to admission. Cough and expectoration had developed in the interim. Three years before she had marked right-sided involvement with tuberculosis, but this cleared up and the patient returned to her usual occupation. There was a definite family history, the mother having had pulmonary tuberculosis. The physical examination showed definite signs of an active process in the left second interspace area, but no signs of activity were noted over the right or old area. The sputum was positive. Blood count showed the hemoglobin to be 78 per cent, red blood cells 4,300,000, and white blood cells 7,200, with eosinophiles 4 per cent, stabs 12 per cent, segmentals 63.5 per cent, lymphocytes 13 per cent, and monocytes 6.5 per cent. In the film which was made on admission, the definite fibrous lesion in the left upper lobe with its cavitation may be noted. At this time the question of collapse therapy was considered, but it was decided to defer this. The second films, taken two months after admission, showed that the condition could be handled without further surgical assistance. The opinion was corroborated by the blood count, which showed white blood cells 6,200, stabs 5.5 per cent, segmentals 47.5 per cent, lymphocytes 44.5 per cent, and monocytes 2.5 per cent.

The second patient, a female of twenty-three years, also had a history of hemorrhage. Beginning ten days previous to admission, there were eight such episodes of bleeding with 2 or 3 ounces of blood lost each time. Cough, chills, and night sweats developed. There had been hemoptysis a year before, but she had no treatment at that time. Four months previous to admission she had a tonsillectomy for the cough that remained from the early hemoptysis. She had a poor digestive system, and there had been loss of weight. There was a definite family history of tuberculosis, two sisters having been infected, one of whom died at home when the patient was eight years old. The physical findings were marked over the left upper lobe and also at the left base, including signs of cavity in the upper lobe. Definite physical signs were also noted in the second interspace on the right and the fifth and sixth interspace area in the axilla. The sputum was positive. Blood count showed the hemoglobin to be 76 per cent, red blood cells 3,000,000, and white blood cells 7,000, with 19 per cent stabs, 43.5 per cent segmentals, 21 per cent lymphocytes, and 14 per cent monocytes. The x-ray films showed marked left-sided involvement with the more recent spread to the right side. Because of the blood picture, the right-sided involvement, and the toxic condition of the patient, collapse therapy was not thought advisable. Four months later, as x-ray examinations showed, the wisdom of this decision was disproved by the fact that nature had provided definite collapse but with a pleural effusion. However, the collapse had been effected at a considerable cost as the blood count of 15,000 white cells, 27 per cent stabs, 53 per cent segmentals, 9.5 per cent lymphocytes, and 8 per cent monocytes, as well as the depleted physical condition, will attest.

Conclusion

In conclusion, the various types of treatment indicated in 100 sanatorium cases has been discussed. In addition, individual

(Continued on page 870)

THE WISCONSIN MEDICAL JOURNAL

The Council on Scientific Work

W. S. MIDDLETON, Madison, Chairman EBEN J. CAREY, Milwaukee H. A. Sincock, Superior
J. A. EVANS, La Crosse G. W. KRAHN, Oconto Falls

Editorial Staff

MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

H. P. BOWEN ---------Watertown
FRANK W. POPE----------Racine
JOSEPH DEAN----------Madison
B. I. PIPPIN------Richland Center
A. H. HEIDNER-------West Bend
S. E. GAVIN---------Fond du Lac
H. A. JEGI----------Galesville
G. R. DUER----------Marinette
J. W. LAMBERT----------Antigo
JOSEPH F. SMITH--------Wausau
F. E. BUTLER---------Menomonie
F. G. JOHNSON--------Iron River
JOS. LETTENBERGER-Milwaukee

Annual Subscription--------Three Dollars-Fifty Cents Single Copies--------Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI OCTOBER, 1937 Number 10

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

"Wisconsin's Hall of Health"

"THE State Medical Society of Wisconsin, in connection with its annual meeting at Milwaukee during the week of September 14, held an exhibit on health for the public. The 'Hall of Health' occupied the main arena of the Milwaukee Auditorium, opening Friday evening September 10 and closing Friday evening September 17. Eighty exhibits were shown, including those of the State Medical Society of Wisconsin, the Medical Society of Milwaukee County, the Woman's Auxiliary, state and local health departments, educational institutions including Marquette University, the University of Wisconsin and national organizations, including the American Medical Association, the American Society for the Control of Cancer, the American College of Surgeons and the National Board of Medical Examiners. Special exhibits on roentgenology, sight conservation (Hall of Sight), dentistry, nursing and pharmacy were shown by the several societies of specialists and professional workers. The Camp transparent woman was shown and demonstrated. Motion pictures were running in several of the exhibits, as were special demonstrations of the subjects exhibited. The Wisconsin Anti-Tuberculosis Association displayed its traveling educational exhibit built in a trailer coach. The exhibit was opened with a radio broadcast by an announcer from station WTMJ, who took a portable transmitter into the hall and interviewed the exhibitors as he passed from booth to booth. Newspaper publicity was liberal, intelligent and prominently featured. The public reaction, awaited with interest because of the pioneer nature of this venture under state medical society auspices, was gratifying. The total attendance, estimated from entrance checks and a photoelectric cell counter at the door of the Hall of Sight, exceeded 101,000. Long lines of waiting people formed before the exhibits on cancer, syphilis, embryology, dentistry, nostrums and quackery, health and hygiene, and before the Hall of Sight. Crowds gathered about the transparent woman at every demonstration. The seats in the several motion picture rooms were well filled at most times. Through this venture the State Medical Society of Wisconsin sets a high standard. All important mediums of health education were used and coordinated effectively — the exhibit, the pamphlet, the motion picture, the personal demonstration, the healthmobile, the news-

JAMES C. SARGENT, M. D.
President, State Medical Society of Wisconsin, 1938

Dr. James C. Sargent, Milwaukee, the new president of the State Medical Society of Wisconsin, was born in Piqua, Ohio, in 1892. He was graduated from the Ohio State University College of Medicine in 1915. Subsequently he completed a year of internship at the Minneapolis City Hospital and followed this with a year of postgraduate work at the Brady Urologic Institute, Johns Hopkins Hospital.

Doctor Sargent was licensed in Wisconsin in 1917, and has been in continuous practice of his specialty in Milwaukee since that date. He is clinical professor and director of the Division of Urology, Marquette University School of Medicine.

He has been honored by the presidency of the Wisconsin Urological Society and of The Medical Society of Milwaukee County, and is now a member of the Board of Directors of the latter. He is a Fellow of the American College of Surgeons, a member of the American Urological Association, and a licentiate of the American Board of Urology.

paper and the radio. With a strictly educational and noncommercial policy, it was found possible to get liberal cooperation both in personal service and in financial assistance from the professional groups alone, without contributions from outside sources except the loan of a few exhibits of definitely educational character from commercial sources—lent without advertising or other consideration. In view of the strictly educational nature of the project, the city of Milwaukee donated the use of the auditorium. In some communities health shows are being planned under the sponsorship of local medical societies and in association with health supplements to be issued by leading newspapers. Here the newspaper supports the show, the medical profession determining ethical problems and scientific exactitude. Health education is a major function of the medical profession. With this venture, the State Medical Society of Wisconsin has demonstrated not only that the profession is able and willing to discharge that function but that the public is eager to accept leadership from responsible sources."

J. A. M. A., Oct. 2, 1937.

Ophthalmologist

AN ARTICLE recently appeared in a magazine of wide circulation, "The Readers Digest," which sought to make clear to its many readers the differences between oculists and optometrists. The relative value of the services of a trained optometrist and those of an eye physician adequately trained in his specialty must be clear to any attentive reader. A large number of people should now be in possession of facts on the basis of which they can intelligently decide for themselves to whom they will entrust the care of their eyes.

What will the effect of such articles in the lay press be on those physicians who specialize in the care of the eye? Unconsciously the physician has allowed himself to think of optometrists and oculists as two opposing groups, as "we" and "they." Now "they" have had a setback. It is a natural human reaction to assume that inasmuch as "they" are incompetent to give their clients the care they seek, therefore "we" are highly competent in this respect. Unconsciously the eye physician may easily arrogate to himself the laurel of victory in an imaginary test of merit.

It will be well to remember in all humility in accepting this imaginary laurel, we accept a trust which cannot be assumed lightly. It would seem a particularly opportune moment, therefore, for the ophthalmologist to take stock of himself.

In the care of the eye, as in any other branch of medical practice, it is essential to keep on studying, to know the new work as well as the old, and to improve constantly one's techniques and one's knowledge in every possible way. It is only by making use of all opportunities for further development —the libraries, the journals, old and new books, and medical meetings—that a doctor can keep abreast of the times.

The eye physician is a specialist, and, as such, he is under particular obligation to the public. He must never allow himself to do hasty, slipshod work or to betray the patient's confidence in his profession by ignoring complaints or by taking it for granted that the most obvious diagnosis is the correct one. Words alone do not put the eye man in a class by himself. He must prove his competence anew each day in his work and thus convince himself as well as the laity that he is a good refractionist, a good diagnostician and a good surgeon—eminently The One to be trusted with a man's most previous faculty, the eyesight. F.H.H.

THE ANNUAL MEETING

An annual meeting that breaks all registration records; that contains such outstanding scientific exhibits; and witnesses a concurrent Hall of Health that attracts upward of 105,000 laymen, speaks for itself.

Those who attend, however, may not appreciate the hours, days, and in some instances, months of preparation that made such a meeting possible.

To the members of the Council on Scientific Work, the participants in the scientific exhibits and the Hall of Health, the Auxiliary of the Medical Society of Milwaukee County whose membership gave such fine aid at every turn, and the host society, — our deep and grateful appreciation is richly due.

THE WOMAN'S AUXILIARY

(ORGANIZED 1929)

OFFICERS

Mrs. Oscar W. Friske, Beloit, President
Mrs. Robert E. Fitzgerald, Wauwatosa, President-elect
Mrs. Frank E. Brinckerhoff, Beloit, Secretary
Mrs. Arthur J. McCarey, Green Bay, Treasurer
Mrs. Harold E. Marsh, Madison, Parliamentarian

DIRECTORS

Mrs. Rock Sleyster, Wauwatosa
Mrs. F. Gregory Connell, Oshkosh
Mrs. Cornelius A. Harper, Madison

COMMITTEE CHAIRMEN

Archives and History—
Mrs. Edward C. Pfeifer, Racine
Hygeia—
Mrs. Earle E. Kidder, Stevens Point
Nominations—
Mrs. Fred Nause, Jr., Sheboygan
Organization—
Mrs. Eben J. Carey, Wauwatosa
Press and Publicity—
Mrs. George H. Ewell, Madison
Program—
Mrs. William T. Clark, Janesville
Public Relations—
Mrs. Raymond B. Dryer, Poynette

The Presidential Address

By MRS. OSCAR W. FRISKE
Beloit

IN ACCEPTING the duties of the office of president of this organization, I do so with a keen sense of the many responsibilities that such a position places upon me. I am honored to be chosen as your president and will endeavor to discharge these responsibilities as capably as they have been in the past.

There will be no change in the policies of administration for the coming year. The distribution of Hygeia will again be our foremost project and I hope that we will be able to continue to lead all other states in the number of subscriptions secured. Our Public Relations work will continue, and each county auxiliary, in cooperation with its county medical society, will be urged to stress the placement of speakers on medical topics on the programs of every women's organization in their community. Every county auxiliary president is urged to consult often with her advisory council, and no individual project should be undertaken without first obtaining its consent.

Organization of new counties will be stressed, and in county auxiliaries already organized, let us try to have the wife of every member of the Medical Society a member of the Auxiliary.

One of our primary purposes is to create friendliness and sociability with one another so let your programs be planned with this purpose in view—and include social as well as educational functions in your meetings.

We may well be proud of the splendid things that have been accomplished in the collecting of the histories of pioneer physicians and we will most certainly carry on with this work.

The activities and accomplishments of your county auxiliary are of interest to members of the State and national organization. Therefore, your cooperation with the State Press and Publicity chairman regarding your activities is urged and requested. It is our hope that in the near future, with the cooperation of the State Medical Society, the Auxiliary will eventually have its own State journal.

Your State officers and chairmen will be happy to hear from you and eager to assist you at any time, and I am not forgetful of the fact that the growth and success of the Auxiliary for the coming year will be at a standstill without the assistance of each individual member. Your constructive criticism will be readily received and deeply appreciated.

As a summary of the many duties and activities of the Auxiliary, I should like to quote from the inaugural address of a former national president, Mrs. James Blake of Minnesota, who is known and admired by many of us—"Is it worth while? Well, human happiness is to a large degree dependent on health; health, is dependent on

the right conception of its ideal by the lay public. Members of the Auxiliary are a part of the lay public, educated to the right ideals, so Auxiliaries in County and State are necessary to human happiness. So I say, 'Yes, it is worth while to keep up our work of organizing the best set of teachers the lay public can ever hope to find.' "

Sincere appreciation is expressed to you for the confidence which you have manifested toward me. Since no organization can grow and develop without the whole-hearted cooperation of everyone, I plead with you to aid me during the coming year by giving constructive suggestions for the good of the Woman's Auxiliary to the State Medical Society of Wisconsin.

275 Attend Ninth Annual Meeting of Woman's Auxiliary

WITH a luncheon, theatre party, style show, and card party featured as part of their program for the meeting of the State Auxiliary from September 14 to 16, the Woman's Auxiliary to the Medical Society of Milwaukee County acted as hostess to members and guests from twenty-one component societies in the State. For months in advance committees had been doing everything possible to provide for the entertainment and comfort of the numerous members who were expected to register.

A luncheon was served at the Wisconsin Club following the business session Wednesday morning. Then a style show by Stuarts gave Auxiliary members information on the newest fall and winter styles. At 3:30 there was a conducted tour through the Hall of Health,—an exhibit of interest to the laity and medical profession alike, which attracted over 100,000 visitors during the week it was open to the public. Here at the Hygeia booth as well as at the hobby booth Auxiliary members from Milwaukee acted as hostesses.

While the physicians were busy with scientific and social functions of their own Wednesday evening, Auxiliary members enjoyed a comedy playlet, "Mr. Sampson," given by the Cathedral Players at the Auditorium of Marquette University School of Medicine. Following this a buffet supper was served in the Banquet Room of the Hotel Schroeder.

A luncheon and bridge party were given Thursday at the Blue Mound Country Club, both auction and contract bridge being played. And at 6:45 nearly five hundred Auxiliary members, their husbands, and guests gathered in the Crystal Ballroom at the Schroeder Hotel for the annual dinner. Dancing followed the after-dinner addresses by Dr. J. H. J. Upham, president of the American Medical Association, and Dr. Logan Clendening, clinical professor of medicine at the University of Kansas School of Medicine.

All who attended the meeting in Milwaukee were enthusiastic about the entertainment presented through the hostess Auxiliary,—Milwaukee County. Mrs. Eben J. Carey, president of the Woman's Auxiliary to the Medical Society of Milwaukee County, with Mrs. Harold J. Cannon as chairman of the annual meeting, and Mrs. Edward J. Schelble and Mrs. Francis D. Murphy as co-chairmen, together with the following committees, covered arrangements for this annual event:

Registration

Mrs. Raymond P. Schowalter, Chairman
Mrs. Edward F. Barta, Co-chairman
Mrs. Elmer Gramling
Mrs. William Jermain

Headquarters

Mrs. Robert E. Fitzgerald, Chairman
Mrs. Jerome Jekel, Junior Aide

INFORMATION AND LOBBY HOSTESSES

Schroeder Hotel

Mrs. Arno Langjahr, Chairman
Mrs. Thomas Judge, Co-chairman
Mrs. Henry Olson
Mrs. Chester Schneider
Mrs. Gerald H. Friedman
Mrs. Robert McDonald

Mrs. Henry Gramling
Mrs. Fred Kretlow
Mrs. Harry M. Hawkins
Mrs. Rudolf W. Roethke
Mrs. A. J. Ruppenthal
Mrs. George Neilson
Mrs. Theodore Burbach
Mrs. Urban A. Schleuter

Auditorium

Mrs. Julius Sure, Chairman
Mrs. Robert G. Washburn, Co-chairman
Mrs. Clyde Morter
Mrs. Donald C. Ausman
Mrs. S. A. Baranowski
Mrs. Roy W. Benton
Mrs. Elston L. Belknap
Mrs. Louis A. Bernhard
Mrs. Milton C. Borman
Mrs. P. A. Brehm
Mrs. Stephen Cahana
Mrs. Patrick L. Callan
Mrs. R. D. Champney
Mrs. C. J. Corcoran
Mrs. John Dieterle
Mrs. Paul Epperson
Mrs. R. P. Gingrass
Mrs. Leon H. Guerin
Mrs. Clarence F. Hardy
Mrs. H. T. Kristjanson
Mrs. Hilmar G. Martin
Mrs. F. X. McCormick
Mrs. J. J. O'Hara
Mrs. T. F. McCormick
Mrs. Carroll W. Osgood
Mrs. S. Kenneth Pollock
Mrs. A. A. Pleyte
Mrs. George J. Pugh
Mrs. Christoph C. Reinke
Mrs. Karl Schlaepfer
Mrs. Eugene Smith
Mrs. Gamber F. Tegtmeyer
Mrs. Jack B. Wilets

Hobby Exhibit

Mrs. Charles Fidler, Chairman
Mrs. Theodore Wiprud, Co-chairman
Mrs. E. L. Baum
Mrs. J. G. Garland
Mrs. Joseph Lettenberger
Mrs. E. F. Peterson
Mrs. E. J. Schelble
Mrs. Charles M. Schoen
Mrs. Dexter Witte
Mrs. J. J. McGovern
Mrs. Frank E. Drew
Mrs. Carroll W. Osgood
Mrs. W. J. Scollard
Mrs. M. G. Peterman
Mrs. Edward M. Lawler
Mrs. William Kradwell
Mrs. Paul M. Currer
Mrs. F. H. Kramoris
Mrs. Arno Fromm
Mrs. U. A. Schleuter
Mrs. R. C. Pfeil
Mrs. Edward Tharinger
Mrs. Erwin L. Bernhart
Mrs. David Cleveland
Mrs. Walter Brussock
Mrs. T. H. Rolfs
Mrs. Edwin Gute
Mrs. Walter Kearns
Mrs. Joseph Griffith

Hygeia Booth

Mrs. Harry J. Heeb, Chairman
Mrs. I. Z. Davidoff
Mrs. P. J. Eisenberg
Mrs. L. A. Fuerstenau
Mrs. R. T. Gilchrist
Mrs. A. R. F. Grob
Mrs. P. G. Hankwitz
Mrs. L. W. Hipke
Mrs. W. A. Joseph
Mrs. A. D. Kilian
Mrs. Bernard Krueger
Mrs. Henry Kuhn
Mrs. Chester Long
Mrs. James A. Murphy
Mrs. Harry Oakland
Mrs. Henry Pfeifer
Mrs. Fred J. Pfeifer, New London
Mrs. M. M. Spitz

Transportation

Mrs. Robert Brunkhorst, Chairman
Mrs. M. J. Kuhn
Mrs. W. T. Casper
Mrs. Frank Rettig
Mrs. Harold E. Cook
Mrs. Louis H. Kretchmar
Mrs. Charles J. Becker
Mrs. Raymond J. Dalton
Mrs. John A. Grab
Mrs. C. E. Belleheumer
Mrs. Wilson Hume
Mrs. J. Powers
Mrs. Peter Oberbreckling

Flowers and Decorations

Mrs. Joseph J. Adamkiewicz, Chairman
Mrs. William Grotjan, Co-chairman
Mrs. Paul Currer
Mrs. Christopher Reinke
Mrs. John O'Hara
Mrs. John Blair
Mrs. Elmer Gramling

Reservations

Mrs. Edwin P. Bickler, Chairman
Mrs. William Kradwell, Co-chairman
Mrs. C. F. McDonald
Mrs. H. O. Zurheide
Mrs. F. J. Kozina

Press and Publicity
Mrs. William Scollard, Chairman
Mrs. Julius Sure, Co-chairman

Buffet Supper
Mrs. Merle Q. Howard, Chairman
Mrs. R. H. Feldt, Co-chairman

Luncheon and Style Show—Wisconsin Club
Mrs. John McCabe, Chairman
Mrs. N. Warren Bourne, Co-chairman

Luncheon and Bridge Party—Blue Mound Country Club
Mrs. Ralph D. Bergen, Chairman
Mrs. William A. Ryan, Co-chairman

Table Prizes
Mrs. Fred Kretlow, Chairman
Mrs. George P. Dempsey, Co-chairman

Cards and Score Pads
Mrs. George Pugh, Chairman
Mrs. William Studley, Co-chairman

With a splendid record of accomplishment, among which are the development of the historical exhibit project, the fact that Wisconsin again achieved first place in the number of subscriptions to Hygeia, and the organization of two new county auxiliaries, Mrs. Cornelius A. Harper, retiring president, gave the following report:

"As president of the Woman's Auxiliary to the State Medical Society of Wisconsin, I am very proud—as I know you all must be—that Wisconsin has been signally honored this past year in having three of its members from Milwaukee County, officers in the national organization: Mrs. Robert E. Fitzgerald who served as national president; Mrs. Eben J. Carey who was national treasurer, and Mrs. J. Gurney Taylor who was corresponding secretary.

"And now of course you are eager to hear what has been done in 1936–1937. Much has been hoped for and worked for, and at least a little has been accomplished.

"You will be glad to know our total membership has been increased from 914 to considerably over one thousand. And two active, up-and-coming county auxiliaries have been formed; the Washington–Ozaukee County Auxiliary; and the Waupaca County Auxiliary. I am happy to have been present when both of these were organized, and, I assure you, both are proving a great asset to our State Auxiliary.

"If two new auxiliaries can be added each year, soon every county in Wisconsin will be working for us, and with us.

"The project of securing subscriptions to Hygeia, and of extending the helpful influence of this magazine has been enthusiastically carried on by all county organizations with very gratifying results giving Wisconsin first place again nationally.

"The State Auxiliary has cooperated actively and earnestly with the Women's Field Army for the Control of Cancer in its nation-wide war upon that dread disease. Your State president was fortunate in being the first one in Wisconsin to turn in money for the work of the Women's Field Army.

"The promotion of pleasant acquaintanceship and friendliness among doctors' wives has been, as always, an objective this year, and the large gathering at this convention is surely a sign of its continued success.

"One of the most important projects has been the continuation of the work of building up a permanent exhibit dealing with pioneer medical history in Wisconsin. This exhibit, lodged in the State Historical Museum at Madison, is already a large one, containing as it does, 180 sketches of pioneer physicians, saddle bags, and complete surgical kits of early days, photographs of Wisconsin surgeons and physicians, old account and record books, and many other things pertaining to the medical history of Wisconsin.

"This exhibit was commended as valuable in a recent copy of the journal of the State Historical Society. Its value will of course greatly increase as time goes on. It is hoped that all of you will especially keep in mind this work of our Auxiliary and add to the exhibit anything that would possibly fit into such a collection.

"As president, I have had some very happy visits with the county organizations: a delightful afternoon at West Bend when the Washington–Ozaukee Auxiliary was formed; a charming luncheon meeting at New London when Waupaca County organized; an enthusiastic dinner meeting at Janesville with the Rock County group, from whose number your splendid next president has been chosen; an inspiring evening at Beaver Dam with the Dodge County Auxiliary; and an interesting luncheon meeting with the Kenosha County organization. I also attended the board meeting in Chicago last November of the Woman's Auxiliary to the American Medical Association.

"I wish I could have visited more county auxiliaries, for such visits not only are pleasant social occasions, but also are most helpful and instructive to a State president.

"Through letters I contacted the presidents of all county medical societies in order that they might be reminded again that our Woman's Auxiliary stands ever ready to be of any assistance possible to the county medical societies as well as to the State Medical Society.

"Our Auxiliary in Wisconsin is indeed fortunate in that it has the efficient, cordial cooperation and assistance of the officers of the State Medical Society, and to these officers, I know you all are—as well as I—very grateful.

"Conscious as I am of the many things I *hoped* to do—and did not do—and of the many I *should* have done—and could not do—yet I have greatly

enjoyed my term of office and it has been a pleasure working with the splendid executive board that has served with me. It has been particularly helpful in having my most efficient secretary, Mrs. Walter E. Sullivan, in the same city.

"I thank you for the privilege of serving as president for such a fine organization."

It has been decided that the State Medical Society of Wisconsin will hold its next year's meeting in Milwaukee, and the State Auxiliary will meet at the same time. It is hoped that members throughout the State will make plans to attend. In the promotion of the ideals of the medical profession and the fostering of sociability and friendliness among doctors and their wives and families, the common meeting ground of the Auxiliary provides a fertile field for healthy growth. Milwaukee cordially invites all Auxiliary members to come and participate in the convention to be held in September, 1938.

The registrants and the complete minutes of the pre-convention board meeting, the two business sessions, and the post-convention board meeting, as reported by the retiring secretary, Mrs. Walter E. Sullivan, and the new secretary, Mrs. Frank E. Brinckerhoff, follow.

Registrants at Auxiliary Meeting

BROWN-KEWAUNEE-DOOR

Bolles, Mrs. C. S. ---------De Pere
Dana, Mrs. D. B. -------Kewaunee
Dougherty, Mrs. J. S. ------Suring
Ford, Mrs. W. W. ------Green Bay
McCarey, Mrs. A. J. ----Green Bay
McNevins, Mrs. E. S.----Green Bay
Nadeau, Mrs. E. G. -----Green Bay
Quigley, Mrs. L. D. ----Green Bay
Schmidt, Mrs. E. S. -----Green Bay
Shinners, Mrs. G. M.----Green Bay
Wollersheim, Mrs. P. J.
----------Forest Junction

COLUMBIA-MARQUETTE-ADAMS

Costello, Mrs. W. H. ----Randolph
Dryer, Mrs. R. B. ---------Poynette
MacGregor, Mrs. James ---Portage
McNamara, Mrs. L. V. ----Montello
Radl, Mrs. C. J.---Wisconsin Dells
Tierney, Mrs. E. F. -------Portage

DANE

Crownhart, Mrs. J. G. ----Madison
Dean, Mrs. Joseph -------Madison
Edwards, Mrs. A. C. ------Madison
Bryan, Mrs. A. W. ---------Madison
Ewell, Mrs. G. H. ---------Madison
Girard, Mrs. R. ----------Madison
Gray, Mrs. R. J. -------Evansville
Harper, Mrs. C. A. -------Madison
Hill, Mrs. N. A. ----------Madison
Jackson, Mrs. Arnold -----Madison
Jackson, Mrs. Reginald ---Madison
Marsh, Mrs. Harold ------Madison
Neupert, Mrs. C. N. ------Madison
Reznichek, Mrs. C. G. ----Madison
Seevers, Mrs. M. H. ------Madison
Sisk, Mrs. J. N. ----------Madison
Sprague, Mrs. L. V. ------Madison
Stebbins, Mrs. G. G. ------Madison
Sullivan, Mrs. W. E. -----Madison
Supernaw, Mrs. J. S. -----Madison

DODGE

Rosenheimer, Mrs. A. M.
----------Beaver Dam

DOUGLAS

Weisberg, Mrs. J. H. -----Superior

FOND DU LAC

Gavin, Mrs. S. E. ----Fond du Lac
Gardner, Mrs. L. C.---Fond du Lac
Hull, Mrs. H. H. ---------Brandon
Hutter, Mrs. A. M. ---Fond du Lac
Johnson, Mrs. J. M. --------Ripon
Layton, Mrs. O. M.---Fond du Lac
Pawsat, Mrs. E. H.---Fond du Lac
Raymond, Mrs. R. G.--Brownsville

GRANT

Buck, Mrs. G. C. -------Platteville
Cunningham, Mrs. Wilson
----------Platteville
Soles, Mrs. F. A. -------Platteville

GREEN LAKE-WAUSHARA

Wiesender, Mrs. A. J. ------Berlin

KENOSHA

Mayfield, Mrs. A. L. ------Kenosha
Ripley, Mrs. H. M. -------Kenosha
Robinson, Mrs. H. A. ----Kenosha
Schlapik, Mrs. L. --------Kenosha
Stewart, Mrs. W. C. ------Kenosha

MANITOWOC

Andrews, Mrs. M. P.----Manitowoc
Donohue, Mrs. Wm. ----Manitowoc
Hammond, Mrs. R. W.--Manitowoc
Moriarty, Mrs. L. J.---Two Rivers
Stueck, Mrs. Arthur----Manitowoc

MILWAUKEE

Adamkiewicz, Mrs. J. J.-Milwaukee
Bach, Mrs. R. J.---------Milwaukee
Barta, Mrs. E. F.-------Milwaukee
Baum, Mrs. E. L.-------Milwaukee
Baumann, Mrs. A.-------Milwaukee
Baumgarten, Mrs. S.----Milwaukee
Becker, Mrs. C. J.------Milwaukee
Bellehumeur, Mrs. C. E.
----------Milwaukee
Bergen, Mrs. R. D.-----Milwaukee
Bernhard, Mrs. L. A.---Milwaukee
Bickel, Mrs. W. H.-----Milwaukee
Bickler, Mrs. E. P.-----Milwaukee
Bork, Mrs. A. L.--------West Allis
Borman, Mrs. M. C.-----Milwaukee
Bourne, Mrs. N. W.-----Milwaukee
Brunkhorst, Mrs. Robt.-Milwaukee
Brussock, Mrs. Walter-Wauwatosa
Cannon, Mrs. H. J.-----Milwaukee
Carey, Mrs. Eben J.---Wauwatosa
Churchill, Mrs. Bernard-Milwaukee
Cleary, Mrs. E. M. -----Milwaukee
Cook, Mrs. H. E.-------Milwaukee
Currer, Mrs. P. M.------Milwaukee
Curtin, Mrs. J. G.------Milwaukee
Dempsey, Mrs. G. P.-So. Milwaukee
Dundon, Mrs. J. R.-----Milwaukee
Eisenberg, Mrs. P. J.---Milwaukee
Enzer, Mrs. Norbert----Milwaukee
Feldt, Mrs. R. H.-------Milwaukee
Fidler, Mrs. Charles----Milwaukee
Fitzgerald, Mrs. Gilbert Milwaukee
Fitzgerald, Mrs. R. E.--Milwaukee
Foley, Mrs. L. J.-------Milwaukee
Friedman, Mrs. G. H.---Milwaukee
Froelich, Mrs. J. A.-----Milwaukee
Fromm, Mrs. Arno -----Milwaukee
Gebhard, Mrs. U. E.----Milwaukee
Gingrass, Mrs. R. P.----Milwaukee
Gramling, Mrs. E. H.--Wauwatosa
Gramling, Mrs. H. J.----Milwaukee
Grob, Mrs. A. R. F.-----Milwaukee
Grotjan, Mrs. W. F.----Milwaukee
Gumerman, Mrs. G.-----Milwaukee
Habbe, Mrs. J. Edwin--Milwaukee
Hake, Mrs. C. B.-------Milwaukee
Hankwitz, Mrs. P. G.---Milwaukee
Hawkins, Mrs. Harry---Milwaukee
Heeb, Mrs. Harry J.----Milwaukee
Hiller, Mrs. Robert-----Milwaukee
Hoffmann, Mrs. G. H.---Milwaukee
Howard, Mrs. Merle Q.
----------Wauwatosa
Huston, Mrs. John -----Milwaukee
Jackson, Mrs. Edward--Milwaukee
Jacobson, Mrs. Edward-Milwaukee
Jekel, Mrs. Jerome-----Milwaukee
Jermain, Mrs. Wm.-----Milwaukee
Joseph, Mrs. W. A.-----Milwaukee
Judge, Mrs. T. A.-------Milwaukee
Kozina, Mrs. F. J.------Milwaukee
Kradwell, Mrs. Wm.----Milwaukee
Kramoris, Mrs. F. H.---Milwaukee
Kretchmar, Mrs. L. H.--Milwaukee
Kretlow, Mrs. F. A. ----Milwaukee
Ladewig, Mrs. A. W.---Milwaukee
Lang, Mrs. V. F.--------Milwaukee
Langjahr, Mrs. A. R.---Milwaukee
Lawler, Mrs. E. M.-----Milwaukee
Lee, Mrs. Paul E. ------Milwaukee

Lettenberger, Mrs. J.___Milwaukee
Lieberman, Mrs. Benj.__Milwaukee
Liefert, Mrs. W. C._____Milwaukee
Marquardt, Mrs. C. R.__Milwaukee
Martin, Mrs. H. G._____Milwaukee
McCabe, Mrs. John _____Milwaukee
McCormick, Mrs. F. X.__Milwaukee
McCormick, Mrs. T. F.__Milwaukee
McDonald, Mrs. C. F.___Milwaukee
McDonald, Mrs. R. E.___Milwaukee
McElligott, Mrs. J._____Milwaukee
McGovern, Mrs. J. J.___Milwaukee
McKillip, Mrs. W. J.____Milwaukee
Megna, Mrs. S._____Milwaukee
Mendeloff, Mrs. Hyman_Milwaukee
Murphy, Mrs. F. D.____Wauwatosa
Murphy, Mrs. James____Milwaukee
Neilson, Mrs. G. W.____Milwaukee
O'Hara, Mrs. J. J._____Milwaukee
O'Malley, Mrs. Wm. P.__Milwaukee
Osgood, Mrs. C. W.____Wauwatosa
Peterson, Mrs. E. F.____Milwaukee
Peyton, Mrs. S. T._____Milwaukee
Pollack, Mrs. S. K._____Milwaukee
Pugh, Mrs. G. J._____Milwaukee
Regan, Mrs. J. R._____Milwaukee
Reinke, Mrs. C. C._____Milwaukee
Rettig, Mrs. F. E._____Milwaukee
Reuter, Mrs. M. J._____Milwaukee
Rosenbaum, Mrs. M. K._Milwaukee
Ruppenthal, Mrs. A. J.__Milwaukee
Ryan, Mrs. Wm. A._____Milwaukee
Sargent, Mrs. J. C._____Milwaukee
Schelble, Mrs. E. J._____Milwaukee
Schlueter, Mrs. U._____Milwaukee
Schowalter, Mrs. R. P.__Milwaukee
Schulz, Mrs. Irwin_____Wauwatosa
Scollard, Mrs. W. J.____Milwaukee
Seeger, Mrs. S. J._____Milwaukee
Sherwood, Mrs. M. W.__Milwaukee
Sleyster, Mrs. Rock ___Wauwatosa
Squier, Mrs. T. L._____Milwaukee
Stamm, Mrs. L. P._____Milwaukee
Stranberg, Mrs. W. L.__West Allis
Studley, Mrs. Wm. H.__Milwaukee
Sure, Mrs. J. H._____Milwaukee
Swindle, Mrs. P. F._____Milwaukee
Tabachnick, Mrs. Harry Milwaukee
Taylor, Mrs. J. Gurney_Milwaukee
Thill, Mrs. G. E._____Wauwatosa
Truitt, Mrs. J. W._____Milwaukee
Vande Erve, Mrs. W.__Wauwatosa
Walton, Mrs. W. B._____Milwaukee
Warfield, Mrs. L. M.____Milwaukee
Washburn, Mrs. R. G.__Milwaukee
Whalen, Mrs. G. E._____Milwaukee
Wilets, Mrs. J. P._____Milwaukee
Wiprud, Mrs. Theodore_Milwaukee
Witte, Mrs. Dexter_____Milwaukee
Wyman, Mrs. J. F._____Milwaukee
Zurheide, Mrs. H. O.____Milwaukee

OUTAGAMIE

Cooney, Mrs. E. W._____Appleton
Dehne, Mrs. W. O._____Appleton
Hegner, Mrs. G. T._____Appleton
Laird, Mrs. J. J._____Black Creek
Neidhold, Mrs. C. D._____Appleton
Rector, Mrs. A. E._____Appleton
Towne, Mrs. W. H.____Hortonville

POLK

Arveson, Mrs. R. G._____Frederic

PORTAGE

Kidder, Mrs. E. E.___Stevens Point

RACINE

Christensen, Mrs. F. C._____Racine
Constantine, Mrs. C. E.____Racine
Henken, Mrs. J. F._____Racine
Lifschutz, Mrs. L. M._____Racine
Pfeifer, Mrs. E. C._____Racine
Pope, Mrs. F. W._____Racine
Thompson, Mrs. I. F._____Racine

ROCK

Brinckerhoff, Mrs. F. E._____Beloit
Clark, Mrs. W. T._____Janesville
Crockett, Mrs. W. W._____Beloit
Friske, Mrs. Oscar_____Beloit
Hartman, Mrs. E. C._____Janesville
John, Mrs. George_____Beloit
Kasten, Mrs. H. E._____Beloit
McGuire, Mrs. W. H.____Janesville
Ross, Mrs. M. E._____Brodhead
Smith, Mrs. C. E._____Beloit

SHEBOYGAN

Deicher, Mrs. H. F._____Plymouth
Hildebrand, Mrs. G. J.__Sheboygan
Leighton, Mrs. F. A.
_____Sheboygan Falls
Mason, Mrs. P. B._____Sheboygan
McRoberts, Mrs. J. W.__Sheboygan

WAUKESHA

Coon, Mrs. H. M._____Statesan
Egloff, Mrs. L. W._____Pewaukee
Grover, Mrs. F. L._____Hartland
Hassall, Mrs. J. C.____Oconomowoc
Loughnan, Mrs. A. J._Oconomowoc
Nixon, Mrs. H. G. B._____Hartland
Scheele, Mrs. F. M._____Waukesha
Schneider, Mrs. Hans ____Dousman
Voje, Miss Hertha____Oconomowoc

WINNEBAGO

Koehler, Mrs. A. G._____Oshkosh
Pfefferkorn, Mrs. E. B.____Oshkosh
Romberg, Mrs. H. A._____Oshkosh
Wagner, Mrs. W. A._____Oshkosh
Wheeler, Mrs. W. P._____Oshkosh

WAUPACA-SHAWANO

Boudry, Mrs. M. O._____Waupaca
Cantwell, Mrs. A. A._____Shawano
Cantwell, Mrs. R. C._____Shawano
Christofferson, Mrs. A. M._Waupaca
Davis, Mrs. W. O._____Shawano
Monsted, Mrs. J. W.___New London
Murphy, Mrs. J. H.____Clintonville
Pfeifer, Mrs. F. J.____New London
Schroeder, Mrs. E. L._____Shawano

WASHINGTON-OZAUKEE

Fisher, Mrs. D. J.____Fond du Lac
Fisher, Mrs. R. S. _____Allenton
Frankow, Mrs. Adrian__West Bend
Froede, Mrs. H. E._____Jackson
Hurth, Mrs. O. J._____Cedarburg
Kauth, Mrs. P. M._____West Bend
Lynch, Mrs. H. M._____West Bend
Monroe, Mrs. M._____Hartford
Prefontaine, Mrs. K. F.____Slinger

GUESTS

Bennett, Mrs. L. J.____Wis. Rapids
Daley, Mrs. D. M._____La Crosse
Doege, Mrs. Karl_____Marshfield
Doege, Mrs. Paul_____Marshfield
Doneis, Mrs. F._____Minocqua
Ennis, Mrs. S. A. J.____Shullsburg
Filek, Mrs. Allen_____Green Bay
Fortner, Mrs. W. H. _____Bloomer
Hoard, Mrs. W. D., Jr.
_____Fort Atkinson
Howard, Mrs. T. J._____Milwaukee
Jegl, Mrs. H. A._____Galesville
Joannes, Mrs. H. V._____Green Bay
Jones, Mrs. Griffith S.
_____Genesee Depot
Jorris, Mrs. E. H._____Sparta
Krahn, Mrs. G. W.____Oconto Falls
MacCornack, Mrs. R. L._Whitehall
Mauthe, Mrs. Walter__Whitewater
McConnell, Mrs. E. D.__Darlington
Parke, Mrs. George_____Viola
Remer, Mrs. W. H._____Chaseburg
Schroeder, Miss Betty Rae
_____Shawano
Smith, Mrs. S. M. B._____Wausau

Transactions of Ninth Annual Meeting of Woman's Auxiliary

Pre-Convention Board Meeting

Tuesday, September 14, 1937

A DINNER meeting of the Executive Board of the Woman's Auxiliary to the State Medical Society of Wisconsin was held in the library of the University Club, Milwaukee, at 6:30 p.m. Mrs. Cornelius A. Harper of Madison, president, presided, and there were thirty-five members present at the meeting: Mrs. J. Gurney Taylor, State parliamentarian, Milwaukee; Mrs. Walter E. Sullivan, State secretary, Madison; Mrs. Harold J. Cannon, convention chairman, Milwaukee; Mrs. W. T. Clark, vice-president of Rock County Auxiliary, Janesville; Mrs. C. E. Constantine, president-elect of Racine County Auxiliary, Racine; Mrs. D. B. Dana, president-elect of Brown–Kewaunee–Door County Auxiliary, Kewaunee; Mrs. Joseph Dean, president-elect of Dane County Auxiliary, Madison; Mrs. F. L. Grover, president of Waukesha

County Auxiliary, Hartland; Mrs. J. F. Henken, president of Racine County Auxiliary, Racine; Mrs. E. E. Kidder, president of Portage County Auxiliary, Stevens Point; Mrs. O. M. Layton, president-elect of Fond du Lac County Auxiliary, Fond du Lac; Mrs. F. A. Leighton, president of Sheboygan County Auxiliary, Sheboygan Falls; Mrs. H. M. Lynch, president of Washington–Ozaukee County Auxiliary, West Bend; Mrs. James M. MacGregor, president of Columbia–Marquette–Adams County Auxiliary, Portage; Mrs. A. L. Mayfield, president of Kenosha County Auxiliary, Kenosha; Mrs. C. D. Neidhold, president of Outagamie County Auxiliary, Appleton; Mrs. Frank W. Pope, State treasurer, Racine; Mrs. H. A. Robinson, president-elect of Kenosha County Auxiliary, Kenosha; Mrs. A. M. Rosenheimer, president of Dodge County Auxiliary, Beaver Dam; Mrs. E. S. Schmidt, president of Brown–Kewaunee–Door County Auxiliary, Green Bay; Mrs. I. F. Thompson, State public relations chairman, Racine; Mrs. Paul Mason, president-elect of Sheboygan County Auxiliary, Sheboygan; Mrs. W. H. Towne, president-elect of Outagamie County Auxiliary, Hortonville; Mrs. R. G. Washburn, president-elect of Milwaukee County Auxiliary, Milwaukee; Mrs. J. H. Weisberg, State program chairman, Superior; Mrs. O. J. Hurth, president-elect of Washington–Ozaukee County Auxiliary, Cedarburg, and Miss Lucia Stolp, convention secretary of State Auxiliary, Madison.

Honor guests introduced by the president included the following: Mrs. Robert E. Fitzgerald, past president of the National Auxiliary, Wauwatosa; Mrs. Stephen E. Gavin, wife of the president of the State Medical Society, Fond du Lac; Mrs. J. George Crownhart, wife of the executive secretary of the State Medical Society, Madison; Mrs. James C. Sargent, wife of the president-elect of the State Medical Society, Milwaukee; Mrs. Oscar Friske, president-elect of the State Auxiliary, Beloit; and two directors of the State Auxiliary, Mrs. Rock Sleyster, Wauwatosa, and Mrs. Eben J. Carey, president of the Milwaukee County Auxiliary, Wauwatosa.

The minutes of the mid-year board meeting were read by the secretary, Mrs. Walter E. Sullivan, Madison, and approved.

The treasurer, Mrs. Frank Pope, reported that her accounts had not been audited, consequently the report was not presented.

The following State chairmen presented their reports:

Mrs. I. F. Thompson, Racine, chairman of Public Relations.

Mrs. J. H. Weisberg, Superior, chairman of Program.

Mrs. H. H. Hull, Brandon, chairman of Hygeia. In the absence of Mrs. Hull, this report was read by the secretary, Mrs. Sullivan.

Mrs. Willard Pease, chairman of Organization. In the absence of Mrs. Pease, this report was read by the secretary, Mrs. Sullivan.

No reports were submitted by the chairman of archives and historian or the chairman of press and publicity.

The convention chairman, Mrs. Harold J. Cannon, Milwaukee, outlined the convention plans.

Mrs. Harper, president, announced her Resolutions Committee as follows: Mrs. D. B. Dana, Kewaunee, chairman; Mrs. J. F. Henken, Racine; and Mrs. E. S. Schmidt, Green Bay.

The meeting adjourned at 9:00 p.m.

Mrs. Walter E. Sullivan,
Secretary 1936–1937,
Mrs. Cornelius A. Harper,
President 1936–1937.

First Session

Wednesday, September 15, 1937

The general business meeting of the ninth annual convention of the Woman's Auxiliary to the State Medical Society of Wisconsin was called to order in the Banquet Room of the Schroeder Hotel, Milwaukee, on Wednesday, September 15, at 10:00 a.m. by the president, Mrs. Cornelius A. Harper, Madison. Fifty-seven members were in attendance at this session.

The invocation was given by the Reverend A. A. Zinck of the Church of the Redeemer, Milwaukee.

Mrs. Eben J. Carey, president of the Woman's Auxiliary to the Medical Society of Milwaukee County, gave the address of welcome.

The response was made by Mrs. F. J. Pfeifer, president-elect of the Woman's Auxiliary to the Waupaca–Shawano County Medical Society.

In memoriam all stood with bowed heads for a few minutes in honor of the deceased members of the Wisconsin Auxiliary.

Mrs. Harold J. Cannon, Milwaukee, convention chairman, gave a synopsis of the interesting activities planned for the day.

The minutes of the first and second sessions of the eighth annual meeting held in Madison, were read by the secretary, Mrs. Walter E. Sullivan, Madison, and stood approved as read.

Roll call of the county auxiliaries was taken by the secretary, and the following reports were made:

Brown–Kewaunee–Door—by Mrs. E. S. Schmidt, Green Bay, president.

Columbia–Marquette–Adams—by Mrs. J. M. MacGregor, Portage, president.

Dane—The secretary, Mrs. Sullivan, read the report received from the president, Mrs. Harold E. Marsh, Madison.

Dodge—by Mrs. A. M. Rosenheimer, Beaver Dam, president.

Douglas—Not represented.

Fond du Lac—In the absence of the president, Mrs. R. G. Mills, the president-elect, Mrs. O. M. Layton, Fond du Lac, read the report.

Grant—Not represented.

Green Lake–Waushara—Not represented.

Kenosha—by Mrs. A. L. Mayfield, Kenosha, president.

Manitowoc—The secretary, Mrs. Sullivan, read the report received from the president, Mrs. A. F. Stueck, Manitowoc.

Marinette–Florence—Not represented.

Milwaukee—by Mrs. Eben J. Carey, Wauwatosa, president.

Outagamie—by Mrs. C. D. Neidhold, Appleton, president.

Polk—Not represented.

Portage—by Mrs. E. E. Kidder, Stevens Point, president.

Racine—by Mrs. J. F. Henken, Racine, president.

Rock—The secretary, Mrs. Sullivan, read the report received from the president, Mrs. W. W. Crockett, Beloit.

Sheboygan—by Mrs. F. A. Leighton, Sheboygan Falls, president.

Washington–Ozaukee—by Mrs. H. M. Lynch, West Bend, president.

Waukesha—In the absence of the president, Mrs. F. L. Grover, Hartland, the report was read by Mrs. Henry G. Nixon, Hartland.

Waupaca–Shawano—by Mrs. J. H. Murphy, Clintonville, president.

Winnebago—by Mrs. E. B. Pfefferkorn, Oshkosh, president.

Mrs. Pfefferkorn also brought a message concerning Mrs. F. Gregory Connell, past president of the State Auxiliary, who is in California.

Since the auditing of the accounts had not been completed, Mrs. Frank W. Pope of Racine, State treasurer, was able to present only a partial report.

Mrs. Cornelius A. Harper, president, then gave her report in which she mentioned the organization of two new auxiliaries during the year, Washington–Ozaukee and Waupaca–Shawano. She also reported that Wisconsin again has first place nationally in the number of subscriptions to Hygeia. She spoke of the fact that the promotion of pleasant acquaintanceship and friendliness among doctors' wives has been, as always, an objective this year. One of the most important projects has been the continuation of the work of building up a permanent exhibit dealing with pioneer medical history in Wisconsin. Mrs. Harper urged the members to keep this exhibit in mind and add to it if possible. Besides attending a number of county meetings, she reported that she had been at the board meeting in Chicago of the Woman's Auxiliary to the American Medical Association.

Mrs. Raymond P. Schowalter, chairman of Registration, reported a total of 140 registrations, as follows:

National Board	1
Executive Board	17
Delegates	13
Alternates	5
Members	91
Guests	13
Total	140

The meeting adjourned at 11:30 a.m.

Mrs. Walter E. Sullivan,
Secretary 1936–1937,
Mrs. Cornelius A. Harper,
President 1936–1937.

Second Session

Thursday, September 16, 1937

The second session of the general business meeting of the ninth annual meeting of the Woman's Auxiliary to the State Medical Society of Wisconsin was held in the Banquet Room of the Schroeder Hotel at 10:00 a.m., Thursday, September 16, 1937. The president, Mrs. Cornelius A. Harper, Madison, presided. Sixty-three members were present at this session.

The minutes of the first session were read by the secretary, Mrs. Walter E. Sullivan, Madison, and stood approved as read.

The report of the Committee on Resolutions was read by Mrs. D. B. Dana, Kewaunee, chairman. The resolutions were accepted as read. The secretary, Mrs. Sullivan, was instructed to write letters of thanks to all individuals, committees, and firms mentioned in the report.

The report of the Committee on Nominations was made by Mrs. James C. Sargent, Milwaukee, chairman. There were no nominations from the floor, and the following candidates were elected unanimously:

President-Elect: Mrs. Robert E. Fitzgerald, Milwaukee
Secretary: Mrs. Frank E. Brinckerhoff, Beloit
Treasurer: Mrs. Arthur J. McCarey, Green Bay
Parliamentarian: Mrs. Harold E. Marsh, Madison

The new officers were called to the platform, and the gavel was presented to the new president, Mrs. Oscar W. Friske. Mrs. Friske then gave her inaugural address, in which she outlined the aims of the Woman's Auxiliary and asked for the cooperation and assistance of all members in the proposed work for the coming year.

Mrs. E. S. Schmidt, president of the Brown–Kewaunee–Door County Auxiliary, presented to Mrs. Harper, retiring president, a beautiful corsage, a gift of affection and appreciation from the State Woman's Auxiliary. Mrs. W. W. Crockett of Beloit presented flowers to the new president, Mrs. Friske, with affectionate greetings and good wishes from the members of her own county auxiliary, Rock County.

Dr. R. G. Leland, director of the Bureau of Medical Economics, American Medical Association, Chicago, then gave a very interesting address in which he emphasized the necessity for public confidence in the medical profession. He encouraged the Auxiliary to assist in developing this confidence and in

maintaining the ideals and traditions of medicine as first described in the oath of Hippocrates. The principles of medical ethics, he said, had sometimes been considered as retarding the medical profession, but he pointed out that these principles should be respected as a means of protecting the public. Doctor Leland described the outstanding advances which medicine has made in the control of disease. He referred to Wisconsin as a "proving ground" in the recent legislative session and expressed the hope that the public would not disregard the advice of the medical profession but would have in mind first how better service can be made available without curtailing the advance of medicine.

Mrs. Raymond P. Schowalter, chairman of Registration, reported a total of 234 registrations, as follows:

National Board	1
Executive Board	22
Delegates	23
Alternates	8
Members	160
Guests	20

In the absence of Mrs. Cannon, convention chairman, Mrs. Eben J. Carey, president of the Woman's Auxiliary to the Medical Society of Milwaukee County, gave a brief resume of the entertainment for the day.

Mrs. Harper announced that she had received a letter from Mrs. William Pease, Rio, chairman of Organization. In this letter Mrs. Pease said that she had been ill and was unable to attend the sessions. She extended her best wishes for the success of the convention.

The meeting adjourned at 11:30 a.m.

Mrs. Walter E. Sullivan,
Secretary 1936–1937,
Mrs. Cornelius A. Harper,
President 1936–1937.

Courtesy Resolutions

Resolved, That the Woman's Auxiliary to the State Medical Society of Wisconsin in convention assembled extend its sincere thanks to Mrs. Harold J. Cannon, chairman of the annual meeting, and to all her committee members for the efficient way in which every detail of the convention was managed;

To the Woman's Auxiliary to the Medical Society of Milwaukee County for their generous provision for our every comfort and pleasure;

To the State Medical Society of Wisconsin for providing funds for a theatre party and buffet supper at the annual meeting, for printing tickets and badges, and for sending advance notices and programs to all State Auxiliary members;

To the Advisory Council of the Woman's Auxiliary to the State Medical Society of Wisconsin for their wise direction of our activities.

To Mrs. Cornelius A. Harper, our able president, who piloted our craft throughout the year;

To the members of the Executive Board who have conscientiously carried out the duties of office to the completion of a successful year's work;

To the Reverend A. A. Zinck, pastor of the Church of the Redeemer, Milwaukee, for his impressive invocation;

To the State and local press for their helpful cooperation;

To Mr. Walter Schroeder and the personnel of the Schroeder Hotel for courtesies and services rendered;

To Mr. Arnold Krueger for his helpful assistance in planning the musical program for Wednesday evening;

To the Bradford Piano Company for the use of a grand piano for Wednesday evening's concert;

To Stuarts for a beautiful style show, decorations, and music;

To the Hammersmith–Kortmeyer Company for supplying the electrotype of the picture used on the program;

To Miss Sieben, hostess from the Association of Commerce, for her helpful advice and assistance with registration;

To the Woodley Soap Company for the gift of door prizes;

To the Madeira Art Shop for a door prize.

Respectfully submitted,
Committee on Resolutions,
(Mrs. D. B.) Olga H. Dana, Chairman,
(Mrs. J. F.) Ethel C. Henken,
(Mrs. E. S.) Mary M. Schmidt.

Post-Convention Board Meeting

Thursday, September 16, 1937

The post-convention meeting of the Executive Board of the Woman's Auxiliary to the State Medical Society of Wisconsin was held in the Banquet Room of the Schroeder Hotel at 11:30 a. m. on Thursday, September 16, 1937. The president, Mrs. Oscar W. Friske, presided.

The following members were present: Mrs. Rock Sleyster, Wauwatosa, and Mrs. Cornelius A. Harper, Madison, directors of the Woman's Auxiliary; Mrs. Robert E. Fitzgerald, Milwaukee, president-elect; Mrs. F. E. Brinckerhoff, Beloit, secretary; Mrs. Arthur J. McCarey, Green Bay, treasurer; Mrs. Harold E. Marsh, Madison, parliamentarian; Mrs. E. S. Schmidt, Green Bay, president of the Brown–Kewaunee–Door County Auxiliary; Mrs. J. W. MacGregor, Portage, president of the Columbia–Marquette–Adams County Auxiliary; Mrs. R. G Mills, Fond du Lac, president-elect of the Fond du Lac County Auxiliary; Mrs. G. C. Buck, Platteville, president of the Grant County Auxiliary; Mrs. A. L. Mayfield, Kenosha, president of the Kenosha County Auxiliary; Mrs. Eben J. Carey, Milwaukee, president of the Milwaukee County Auxiliary; Mrs. C. D. Neidhold, Appleton, president of the Outagamie County Auxiliary; Mrs. J. F. Henken, Racine, president of the Racine County Auxiliary; Mrs. W. W. Crockett, Beloit, president of the Rock County Auxiliary; Mrs. F. A. Leighton, Sheboygan Falls,

president of the Sheboygan County Auxiliary; Mrs. H. M. Lynch, West Bend, president of the Washington–Ozaukee County Auxiliary; Mrs. F. L. Grover, Hartland, president of the Waukesha County Auxiliary, Mrs. J. H. Murphy, Clintonville, president of the Waupaca–Shawano County Auxiliary; and Mrs. E. B. Pfefferkorn, Oshkosh, president of the Winnebago County Auxiliary.

The minutes of the pre-convention board meeting were read by the secretary, Mrs. F. E. Brinckerhoff, and approved.

The president announced the appointment of her committee chairmen as follows:

Organization: Mrs. Eben J. Carey, Wauwatosa
Hygeia: Mrs. E. E. Kidder, Stevens Point
Program: Mrs. W. T. Clark, Janesville
Public Relations: Mrs. R. B. Dryer, Poynette
Press and Publicity: Mrs. G. H. Ewell, Madison
Archives and History: Mrs. E. C. Pfeifer, Racine
Nominations: Mrs. Fred Nause, Jr., Sheboygan

The motion was made, seconded, and carried that the list of chairmen as read by the president be accepted. The president then introduced the new officers of the Woman's Auxiliary and the chairmen of committees.

A message from Mrs. Nause, who was unable to be present, was read.

The following Finance Committee, which is to study the budget and make necessary changes in it, was appointed by the president:

Mrs. F. W. Pope, Racine, chairman
Mrs. E. L. Sevringhaus, Madison
Mrs. Arthur J. McCarey, Green Bay
Mrs. H. J. Gramling, Milwaukee
Mrs. Eben J. Carey, Milwaukee

The president outlined briefly the program for the year and announced that there would be two board meetings.

Mrs. Marsh, parliamentarian, then read paragraph D, article 6, of the Constitution, and the following delegates and alternates were elected, upon motion made, seconded, and carried, to serve on the Nominating Committee:

Delegates
Mrs. C. J. Radl, Wisconsin Dells
Mrs. A. E. Rector, Appleton
Mrs. I. F. Thompson, Racine
Mrs. C. A. Harper, Madison
Mrs. E. S. Schmidt, Green Bay

Alternates
Mrs. G. H. Ewell, Madison
Mrs. H. M. Lynch, West Bend
Mrs. C. J. Weber, Sheboygan
Mrs. William Jermain, Milwaukee
Mrs. L. V. McNamara, Montello

The president asked for a discussion on the appropriation of funds for the annual meeting. There is under consideration the question of whether each county should contribute on a prorata basis or whether a certain amount should be set aside on the budget from the general fund. This matter was referred to the Finance Committee for further action at the next board meeting.

The following Revisions Committee, which is to study the Constitution and revise it as necessary, was appointed by the president:

Mrs. Robert E. Fitzgerald, Milwaukee, chairman
Mrs. H. E. Marsh, Madison
Mrs. J. Gurney Taylor, Milwaukee
Mrs. L. M. Warfield, Milwaukee
Mrs. E. S. Schmidt, Green Bay

The meeting adjourned at 12:30 p. m.

Mrs. Frank E. Brinckerhoff,
Secretary 1937–1938,
Mrs. Oscar W. Friske,
President 1937–1938.

Society Proceedings

Columbia—Marquette—Adams

The members of the Columbia–Marquette–Adams and the Woman's Auxiliary had a dinner meeting at Portage on August 31. Following the dinner there was discussion of amendments and resolutions to be considered at the State meeting in Milwaukee. A standard fee was decided on for prenuptial Wassermann tests. The next meeting will be held at the Adams–Friendship Hospital at Adams.

Trempealeau—Jackson—Buffalo

Dr. Milton Trautmann, Madison, addressed the members of the Trempealeau–Jackson–Buffalo County Medical Society at a meeting held at Arcadia on Thursday evening, August 19. A dinner was served preliminary to the program and business session, the latter being held at the offices of Dr. Elizabeth Comstock. Approximately twenty members were present.

Plans were begun for a program of cooperation with the Trempealeau County Health Board and the Physician's Club, discussion to be continued at future meetings.

Tenth District

The thirty-seventh annual meeting of the Tenth District Medical Society was held at Eau Claire on September 30. Following the cancer clinic in the morning, which was conducted by Dr. William A. O'Brien, associate professor of pathology, University of Minnesota, and Dr. James A. Johnson, associate professor of surgery, University of Minnesota, luncheon was served at the Sacred Heart Hospital.

The afternoon program was as follows:

1. Early diagnosis and treatment of cancer—Dr. William A. O'Brien, Minneapolis
2. Prevention and control of cancer in Wisconsin—Dr. William D. Stovall, Madison

Election of officers—intermission

3. The treatment of late stage cancer—Dr. William A. Johnson, Minneapolis
4. X-ray therapy of cancer—Dr. Joseph C. Baird, Eau Claire

News Items and Personals

Dr. Richard J. Steves is now associated with Doctors B. J. Steves, D. T. Long, and J. A. Halgren of Menomonie.

—△—

The Center for Continuation Study of the University of Minnesota announces a series of eight postgraduate medical institutes to be held during the coming school year. The courses will start on the first Monday of each month from October, 1937, to May, 1938, inclusive, and will be one week in length. The instructional staff will be selected from the faculty of the Medical School, Mayo Foundation, and the Extension Division of the Minnesota State Medical Association. The first course from October 4 to 9, inclusive, will be on Disease of the Heart. The didactic lectures and demonstrations will be given in the classrooms of the Center and the bedside teaching at the University of Minnesota Hospitals, Minneapolis General Hospital, Lymanhurst School for Rheumatic Children and the Ancker Hospital, St. Paul. Future subjects will be announced one month in advance of each institute. Any physician who is a member of his local medical society may attend. Erected late in 1936 at a cost of $300,000, the Center for Continuation Study is said to be the only building of its kind in this country. It is used jointly by the professional schools of the University of Minnesota for intensive resident postgraduate instruction and contains living rooms for seventy-eight postgraduate students, dining hall, lounge, library, chapel, classrooms, administrative offices and parking garage. The director is Julius M. Nolte; Dr. William A. O'Brien, associate professor of pathology and preventive medicine, is the representative of the medical faculty.

—△—

A special meeting of the Wisconsin State Board of Medical Examiners will be held at the Hotel Witter, Wisconsin Rapids, on Thursday, October 15. The meeting has been called for 9:00 a.m., and will be for the consideration of reciprocity applicants only.

—△—

A special program of lectures and demonstrations in surgery and medicine will be held under the direction of The Mayo Foundation from November 8 to 12, inclusive. Mornings will be devoted to surgical and medical clinics. In the afternoons and evenings, in addition to a clinico-pathologic conference, symposiums will be conducted on gastro-enterology, sulfanilamide therapy, hematology, neurology, allergy, diseases of the chest and cardiovascular diseases. Visiting physicians are invited to attend.

—△—

Dr. W. T. Becker, Mosinee, has enrolled for an extended course in surgery at the University of Pennsylvania, Philiadelphia.

—△—

Dr. C. N. Lewis, Madison, has resigned his position as a member of the Wisconsin General Hospital infirmary staff to open his own office at 503 State Street, Madison.

—△—

Dr. Bjarne Ravn of Merrill attended the International Congress of Radiology which was held in Chicago recently. This congress was held for the first time in the United States.

—△—

Dr. R. R. Rath, Granton, was guest speaker at a meeting held at the Mapleworks Lutheran School in Granton on Friday evening, September 17. Doctor Rath's talk was on "Diagnosis and Symptoms of Infantile Paralysis."

—△—

Dr. John P. Koehler, Milwaukee health commissioner, has returned to Milwaukee after a 5,500 mile trip to his native Russia. Doctor Koehler's tour also included visits to England, Denmark, Sweden, Finland, Poland, Germany and France. He was guest at a luncheon held Thursday, September 16, at the Wisconsin Club, the luncheon being given by division chiefs from his department.

—△—

The staff of St. Mary's Hospital, Watertown, heard an address by Dr. Russell Wilson, Beloit, on September 2. Doctor Wilson stressed the importance of thorough laboratory tests in diagnosing ailments and described various tests such as those which are used for tuberculosis. Doctor Wilson was accompanied by Dr. T. F. Shinnick also of Beloit.

—△—

Dr. T. M. Slemmons, formerly of New London, has opened an office at Lime Ridge.

—△—

Dr. E. A. Pohle, professor of radiology at the University of Wisconsin Medical School, attended the Fifth International Congress of Radiology held at the Palmer House, Chicago, early in September. This assembly meets every three years. Doctor Pohle presented a paper in the section on roentgen

and radium therapy entitled "Radiation Therapy in Advanced Malignant Disease."

—△—

Dr. R. V. Landis of Appleton was the principal speaker at a meeting of the Sixth District Wisconsin State Nurses Association Wednesday afternoon, September 8, at the nurses home of Theda Clark Hospital, Neenah. His address was entitled "Wings."

—△—

Dr. G. L. Rothenmaier, who has practiced in Elkhart Lake for the last six years, left recently for a short vacation, after which he will enroll for postgraduate work in an Illinois medical school.

—△—

Dr. and Mrs. W. J. Tucker of Ashland sailed for Austria September 1, where Doctor Tucker will study at Vienna for a period of two months.

—△—

At a meeting of the Wausau Rotary Club, Monday, August 23, Dr. D. T. Jones of Wausau was guest of honor, that day begin his seventy-seventh birthday anniversary. Mr. C. B. Bird, a member of the club, told of Doctor Jones' contributions to the community. Special guests at the meeting were Dr. A. W. Boslough, Dr. H. T. Schlegel, Dr. S. M. B. Smith, Dr. W. A. Green, Dr. J. M. Freeman, Dr. E. M. Macaulay, and Dr. M. L. Jones, son of Dr. D. T. Jones.

—△—

Dr. N. P. Anderson of La Crosse left Friday, September 17, for a trip to Europe. He sailed from New York on the Bremen and will spend three months studying in Germany and Sweden.

—△—

The Marshfield Rotary Club met Monday noon, August 30, at the Hotel Charles, at which time Dr. Robert Baldwin of the Marshfield Clinic discussed the subject of diabetes.

—△—

Dr. Joseph S. Evans, professor of medicine at the University of Wisconsin, has accepted an invitation to serve as chairman of a University of Pennsylvania Bicentennial Committee which will include Pennsylvania alumni of Dane County. According to Doctor Gates, president of Pennsylvania University, this committee will give active support to a program to develop the university's educational services along lines which will place increased emphasis upon ethics, character, public service, and training for good citizenship.

—△—

An orthopedic clinic was held in La Crosse on Saturday, September 18, under the joint auspices of the La Crosse County Medical Society and the Crippled Children Division of the State Department of Public Instruction. Members of the staff of the Crippled Children Division were at the clinic to take histories and to interview parents regarding educational facilities available for their children. Arrangements for the transportation of crippled children to the clinic and serving of a luncheon to the children and their parents were made by a committee comprised of representatives of various local organizations.

—△—

With pre-assembly clinics beginning on Saturday, October 16, the annual meeting of the Inter-State Postgraduate Medical Association of North America will be held in the auditorium in St. Louis, Missouri, from October 18 to 22, 1937. Programs have been mailed to physicians, and members of the State Medical Society of Wisconsin are eligible to register at this meeting, the registration fee of which is $5.

MARRIAGES

Dr. Emmett T. Ackerman, Gays Mills, and Miss Georgia Florence Gilbert, Madison, on September 1.

Dr. John F. Cary, Milwaukee, and Miss Agnes Durken, Chicago, on October 9.

Dr. Richard J. Steves, Menomonie, and Miss Doris Bradley, Menomonie, on July 17.

DEATHS

Dr. J. S. Hansberry, Wonewoc, died on Friday, August 27, at his home after a long illness. With his brother, Dr. P. H. Hansberry, he had operated the Hansberry Hospital for the last twelve years. Born in Richland County, he was graduated from Milwaukee Medical College in 1905, and opened offices in Wonewoc shortly afterward.

Doctor Hansberry was active in civic affairs and was formerly secretary of the Juneau County Medical Society, of which he was a member. He was also a member of the State Medical Society of Wisconsin and the American Medical Association.

Surviving him are his widow, one son, one daughter, three brothers, and one sister.

Dr. James S. Hess, Sr., Mauston, died at his home Thursday, September 16, following a brief illness. Ill health had forced his retirement two years ago. Born in 1864, he was graduated from the Barnes Medical College, St. Louis, in 1893. He was in medical practice for forty-two years and founded and built the Mauston Hospital, the Hess Clinic, and the Mauston drug store, maintaining an active interest in the operation of these institutions until his death.

Doctor Hess was a member of the Juneau County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Dr. Benjamin J. Bill, Genoa City, died at his home on Sunday, August 22, after several months' illness. He had been district surgeon for the Chicago and North Western Railway for forty-nine years, and in 1931 was elected first vice-president of the American Medical Association. He was also a member of the Walworth County Medical Society and the State Medical Society of Wisconsin, and this year was given an honorary membership in the State Society and affiliate fellowship in the American Medical Association.

He was born in Planinfield, Connecticut, in 1850 and was graduated from Rush Medical College, University of Chicago, in 1879. He is survived by his widow and six children.

Dr. Arthur W. Rogers, widely known psychiatrist and director of the Rogers Memorial Sanitarium at Oconomowoc, died at his home on August 27. Born in 1870 in England, he was graduated from Rush Medical College, University of Chicago, in 1895. He assisted in directing the Wauwatosa Sanitarium, and in 1907 purchased the sanitarium at Oconomowoc. In 1937 Doctor Rogers turned over his sanitarium, then known as the Oconomowoc Health Resort, to the people of Wisconsin as a memorial to Mrs. Rogers, who died in 1931.

Doctor Rogers was a member of the Waukesha County Medical Society and the State Medical Society of Wisconsin, and served as president of both societies. A member of numerous civic and professional organizations, Doctor Rogers also served in the past as president of the Milwaukee Academy of Medicine, the Milwaukee Neuropsychiatric Society, and the Chicago Neurological Society. He was chairman of the Council of the State Medical Society of Wisconsin and the recipient of its award of merit, "The Council Award," for his outstanding professional work and charitable activities. He was also a member of the American Medical Association.

He is survived by a brother and a sister, both of Chicago.

SOCIETY RECORDS

New Members

M. A. Jochimsen, Grafton.
T. B. Keyes, Butternut.
R. Y. Wheelihan, 238 W. Wisconsin Ave., Milwaukee.
W. J. Voellings, Mukwonago.
J. G. Bohorfoush, Lake View Sanatorium, Madison.
S. R. Beatty, Wisconsin General Hospital, Madison.
W. H. Oatway, Jr., Wisconsin General Hospital, Madison.
Charlotte Fisk, State Board of Health, Madison.
S. W. Hollenbeck, 2650 W. Fond du Lac Ave., Milwaukee.
V. H. Hunkel, 4480 N. Cramer St., Milwaukee.
E. E. Grossmann, 238 W. Wisconsin Ave., Milwaukee.
S. A. Theisen, 104 S. Main St., Fond du Lac.
C. L. Budny, 1225 W. Mitchell St., Milwaukee.
L. M. Simonson, Sheboygan Clinic, Sheboygan.
F. K. Kolb, Howards Grove.
S. P. O'Donnell, Kiel.
W. E. Bayley, St. Francis Hospital, La Crosse.
D. D. Frawley, 111½ Strongs Ave., Stevens Point.
R. J. Stollenwerk, 401 Main St., Stevens Point.
Louis Stern, 3331 W. National Ave., Milwaukee.
L. M. Peters, 606 W. Wisconsin Ave., Milwaukee.
I. J. Ricciardi, 161 W. Wisconsin Ave., Milwaukee.
J. Kenneth Karr, 1202 W. Center St., Milwaukee.
D. H. Lando, Jr., 3075 N. 35th St., Milwaukee.
E. E. Grossmann, 238 W. Wisconsin Ave., Milwaukee.
S. S. Torcivia, 312 E. Wisconsin Ave., Milwaukee.
M. T. McCormack, 747 N. 27th St., Milwaukee.
F. A. Ross, 2301 N. 40th St., Milwaukee.

Changes in Address

K. P. Hoel, Statesan, to Oak Sanatorium, Pewaukee.
James M. Sullivan, Milwaukee, to Madison General Hospital, Madison.
P. A. Brehm, Milwaukee to 1028 Erin St., Madison.
Aloysius Szopinski, Stevens Point to Crivitz.
R. A. Mullen, La Grange, Illinois, to Burlington.
I. I. Cash, Tigerton, to Decatur, Illinois.
R. C. Morrison, Winnebago, to 23 E. Johnson St., Madison.

Registration Records Broken at Ninety-Sixth Anniversary Meeting; Rector Named President-Elect

DR. A. E. RECTOR, Appleton, former speaker of the House of Delegates and previously a member of the Committee on Medical Economics, was the unanimous choice of the House as president-elect at the ninety-sixth anniversary meeting held in Milwaukee, September 14 to 17. All registration records of the Society were broken at this meeting, which witnessed 1,245 physician members of the Society in the recorded registration, with 350 guest physicians, and a total registration of 1,850. This membership registration is believed to have set a new high mark for percentage of members (53 per cent) attending a state society meeting.

Outstanding in its appeal to the general practitioner, the varied scientific program brought a registration that jumped by hundreds from day to day. Sectional meetings taxed facilities of the Milwaukee Auditorium and round-table luncheons with a capacity of 750 were filled and in many instances could have been filled two or three times.

Both the president and president-elect of the American Medical Association participated in the program. Dr. Irvin Abell of Kentucky, president-elect, addressed 400 members at the smoker on "The Responsibilities of the Profession," and on the occasion of the annual dinner and again on the scientific program the members had the pleasure of hearing Dr. J. H. J. Upham, Ohio, president.

The members of the executive committee of the board of trustees of the American Medical Association were guests at the meeting to see the Hall of Health, and practically all members of the headquarters staff at Chicago were in attendance at this unusual exposition at one time or another during the seven and a half days it was open.

Dr. Logan Clendening, Kansas City, was speaker of the evening at the annual dinner in the ballroom of the Schroeder and an attendance of 500 necessitated additional tables in the foyer.

House of Delegates

The several meetings of the 1937 session of the House of Delegates were characterized by the number of important and far-reaching actions taken by the House after careful consideration and free discussion on each question. The meeting time for the initial session was advanced this year from 7:15 p. m. to 4:00 p. m. to permit the members to consider each question carefully and deliberately. The stenotype report of the proceedings has not reached the secretary's desk, but to give the members an account of the outstanding important actions taken, a brief synopsis is outlined below.

1. Authorized the speaker of the House to appoint a committee from the House of Delegates to study the request of the Medical Society of Milwaukee County for additional representation on the Council of the State Society. The committee was empowered to study all questions relating to both representation and election of councilors and make known their recommendations by official communication from the secretary, ninety days prior to the 1938 meeting of the House.
2. Amended the by-laws of the Society to transfer the work of the Editorial Board of the Wisconsin Medical Journal to the Council on Scientific Work.
3. Levied an assessment of $10 on each member of the Society to discharge the recommendations of the president, Dr. James C. Sargent, which were as follows:
   a. The appointment of a special committee to study the "delivery and quality" of medical care in Wisconsin. This committee is to make numerous and frequent trips through the State to confer with members of the Society, hospital authorities, municipal authorities, and special agencies charged with the provision of medical care.
   b. The appointment of a second special committee whose function will be to make an actuarial and legal study of the question of hospital insurance. This committee, to be composed of members of the Society, nurses, and hospital authorities, is to be appointed by the president. Estimates of the cost of the actuarial and legal studies of this question are that this committee's work will consume half of the funds secured by the special assessment.
   b. Upon recommendation of the president and the Committee on Reports of Officers and Standing Committees, the House voted unanimously to use part of the funds secured from the special levy to defray the costs of a personal study by the secretary of the systems of medical care now in operation in Europe.
4. Following the policy established by the House of Delegates of the American Medical Association, the House of Delegates of the State Medical So-

ciety of Wisconsin amended the by-laws to limit the time of appeals to the Council from decisions of the duly constituted officers of component county medical societies to six months following notice of expulsion.

5. The Joint Committee on Ethics and the Unauthorized Practice of Law of the American Bar Association ruled that the medical defense plan of the Ohio State Medical Association was unethical and unauthorized practice of law. To conform to this decision of the American Bar Association the House of Delegates of the Society voted to discontinue the medical defense plan of the Society as it is now constituted. Effective at once, the Medical Defense Fund will not accept renewal of contracts to defend members in the event they are sued for alleged malpractice. The committee will continue to function in an advisory capacity and "to investigate all claims for malpractice which are reported to the committee."
6. The House urged each county medical society to appoint a committee on medical economics and instructed the secretary to inform the secretaries of the component county medical societies of this action of the House of Delegates.
7. The House adopted the resolution originating from the Outagamie County Medical Society permitting county societies to require that an applicant for membership in the Society must reside for one year in the jurisdiction of the Society where application is made, as a requirement precedent to the election to membership.

President's Appointments

The following appointments to standing committees were announced by President-elect Sargent at the first session of the House of Delegates and confirmed later that evening by the House. The complete committees as now constituted follow, the new appointments appearing in italics.

The Committee on Public Policy
Dr. R. H. Jackson, Madison, chairman, 1940
Dr. C. W. Eberbach, Milwaukee, 1939
Dr. S. E. Gavin, Fond du Lac, 1938
President, president-elect, secretary, ex officio

The Committee on Medical Defense
Dr. H. A. Peters, Oconomowoc, chairman, 1940
Dr. A. J. Patek, Milwaukee, 1939
Dr. E. G. Ovitz, Laona, 1938

The Committee on Medical Education and Hospitals
Dr. F. D. Murphy, Milwaukee, chairman, 1939
Dr. I. R. Sisk, Madison, 1940
Dr. W. S. Middleton, Madison, 1938

The Committee on Medical Economics
Dr. R. P. Sproule, Milwaukee, chairman, 1940
Dr. A. E. McMahon, Glenwood City, 1939
Dr. A. E. Rector, Appleton, 1938

The Committee on Health and Public Instruction
Dr. Eben J. Carey, Milwaukee, chairman, 1940
Dr. E. E. Kidder, Stevens Point, 1939
Dr Wenzel Wochos, Kewaunee, 1938

The Committee on Cancer
Dr. W. D. Stovall, Madison, chairman, 1940
Dr. H. T. Barnes, Delafield, 1939
Dr. D. J. Twohig, Fond du Lac, 1939
Dr. D. L. Dawson, Rice Lake, 1938
Dr. R. L. MacCornack, Whitehall, 1938
Dr. C. G. Richards, Kenosha, 1938
Dr Gideon Benson, Richland Center, 1938
Dr. G. E. Moore, Antigo, 1938
Dr. E. E. Evenson, Wittenberg, 1939
Dr. F. B. Weeks, Ashland, 1939
Dr. A. C. Taylor, Washburn, 1939
Dr. R. W. Hammond, Manitowoc, 1940
Dr. Walter G. Sexton, Marshfield, 1940
Dr. M. Fernan-Nunez, Milwaukee, 1940

The Committee on Coordination of Medical Services
Dr. S. E. Gavin, Fond du Lac, chairman, 1939
Dr. F. E. Butler, Menomonie, 1940
Dr. Joseph F. Smith, Wausau, 1938
President
Secretary, ex officio
Representatives of University of Wisconsin Medical School
Representatives of Wisconsin General Hospital

The following special committees were appointed:

The Committee on Medical Care for Veterans
Dr. Otho A. Fiedler, Sheboygan, chairman
Dr. L. W. Peterson, Sun Prairie
Dr. J. W. Smith, Milwaukee

The Committee on Medical History
Dr. F Gregory Connell, Oshkosh, chairman
(Power to appoint associates)

The Committee on Mental Hygiene and Institutional Care
Dr. A. W. Bryan, Madison, chairman
Dr. W. T. Kradwell, Wauwatosa
Dr. R. E. Mitchell, Eau Claire

The Committee on Syphilis
Dr. C. W. Giesen, Superior, chairman
Dr. Gunnar Gundersen, La Crosse
Dr. E. L. Tharinger, Milwaukee
Dr. W. J. McKillip, Milwaukee
Dr. H. E. Kasten, Beloit

Elections

At the last session of the House of Delegates the following officers to the Society were elected:

1. A. E. Rector, Appleton, president-elect.
2. Henry J. Gramling, Milwaukee, speaker of the House of Delegates.
3. J. Newton Sisk, Madison, vice-speaker of the House of Delegates.
4. Joseph F. Smith, Wausau, delegate to the American Medical Association.
5. C. W. Giesen, Superior, alternate delegate to the American Medical Association.
6. H. P. Bowen, Watertown, councilor from first district, to fill the unexpired term of Arthur W. Rogers, deceased.
7. Joseph Dean, Madison, reelected councilor from third district.
8. B. I. Pippin, Richland Center, elected councilor from fourth district.
9. A. H. Heidner, West Bend, reelected councilor from fifth district.
10. S. E. Gavin, Fond du Lac, reelected councilor from the sixth district and elected chairman of the Council.

Council Award

Dr. Joseph F. Smith, Wausau, became the twelfth recipient of the Council award on the occasion of the annual dinner. In presenting this award President Gavin made the following statement:

"The success that has crowned so many of the public-spirited projects of our State Medical Society of Wisconsin since its organization in 1841, and the strong position that we occupy today, has been the result of the work of no one man, nor the efforts of a few.

"From as far back in the history of our Society as I can recall, I am impressed by the responsiveness of members and officers alike to their individual duties and needs of their State Society.

"It is true, of course, that certain men, by virtue of the responsibilities vested in them by their fellow members, have had larger opportunities for service. Thus a secretary of a county medical society, a councilor or a president, by his untiring work, may leave behind him outstanding accomplishments. We, in Wisconsin, have had large numbers of such men, and, as chairman of the Council, I wish to pay to them the respect and appreciation that will ever be theirs from a grateful Society.

"Among this host of contributors to our achievements there stand out, from time to time, one or two who not only have rendered long and exceptional services and discharged their duties faithfully, but actually have given of themselves far beyond the call of office because of the love of the work and the feeling of satisfaction in doing something more than that required, for their Society, for their brethren in medicine, and for the people of the State.

"The Council of this Society has taken recognition of these members and from time to time wishes to bestow upon them a little token as small in intrinsic value as it is large as an emblem of the faith, high regard, and affection of their fellow members.

"To Doctors John M. Dodd, Cornelius A. Harper, John J. McGovern, Louis M. Jermain, Edward Evans, Mina B. Glasier, Arthur W. Rogers, Rock Sleyster, Olin West, Edward A. Birge, and Arthur J. Patek have we given the award,—the gold seal of our Society. Tonight I stand to give another."

JOSEPH FRANKLIN SMITH

"A son of Indiana, eminent surgeon and preceptor, active in civic affairs, twenty-five years secretary of the Ninth Councilor District Medical Society, twenty years councilor, twelve years member of the Editorial Board of the Wisconsin Medical Journal, two years alternate delegate and sixteen years delegate to the American Medical Association, past president of the Marathon County Medical Society and of the State Medical Society of Wisconsin,—for your inspirational effort within your district in furthering postgraduate education by quar-

The Presidents' Luncheon

Seated: (left to right) Rock Sleyster, 1924; Wilson Cunningham, 1925; Joseph F. Smith, 1926; R. G. Leland, director of Bureau of Medical Economics, American Medical Association; C. A. Harper, 1931; Otho A. Fiedler, 1932; R. H. Jackson, 1933; S. J. Seeger, 1934.

Standing: (left to right) James C. Sargent, 1938; T. J. O'Leary, 1935; T. J. Redelings, 1915; S. E. Gavin, 1937; J. M. Dodd, 1912; H. E. Dearholt, 1917; G. Windesheim, 1918; and President-Elect A. E. Rector.

(Not shown in picture: F. Gregory Connell, 1923; M. A. McGarty, 1921; W. E. Ground, 1908; B. M. Caples, 1911; A. J. Patek, 1912; J. J. McGovern, 1928; and G. E. Seaman, 1909.)

terly district meetings, for your distinguished service to scientific medicine and public protection alike as the sole creative force of the Council on Physical Therapy of the American Medical Association, and for your devotion over a quarter of a century to the furtherance of the aims and ideals of the organization of medicine in Wisconsin, we, your fellow members, give you this seal of our Society as a token of your achievement and of our esteem and affection."

Golf Tournament

In the golf tournament on Tuesday preceding the annual meeting, Dr. J. C. Griffith, Milwaukee, won the president's cup and trophy with a low gross score of 76. Dr. William Ryan, Milwaukee, won the secretary's cup and trophy with a low net of 70. Dr. J. G. Garland, Milwaukee, was runner-up for the president's cup with a low gross of 80, followed by Dr. E. W. Miller, Milwaukee, with a low gross of 84. Dr. P. J. Niland, Milwaukee, was runner-up for the secretary's cup with a low net of 71, followed by Dr. I. Reifenrath with a low net of 72.

The blind bogey (70–85) brought prizes to Doctors E. X. Thompson, Milwaukee; E. B. Keck, Madison; H. J. Brehm, Racine; W. C. Hermann, Milwaukee; C. O. Schaefer, Racine; F. A. Thayer, Beloit; D. L. Dawson, Rice Lake; G. R. Love, Oconomowoc; A. J. Weber, Milwaukee; M. G. Klumb, Milwaukee; G. J. Maloof, Madison; P. E. Oberbreckling, Milwaukee; C. M. Steiner, Milwaukee; J. Kelley, Cato; G. H. Ewell, Madison; E. P. Bickler, Milwaukee; H J. Heeb, Milwaukee; F. J. Woodhead, Waukesha; J. King, Milwaukee; H. E. McBeath, Milwaukee; H. O. Zurheide Milwaukee; William Jermain, Milwaukee; A. J. Somers, Chippewa Falls; J. B. Wear, Madison; A. H. Carthaus, Thiensville; J. P. Kelly, Pewaukee; G. H. Fellman, Milwaukee; R. E. Martin, Two Rivers; F. R. Krembs, Stevens Point; S. G. Higgins, Milwaukee; W. H. Remer, Chaseburg; Charles Fidler, Milwaukee; J. A. Jenner, Milwaukee; A. M. Hutter, Fond du Lac; C. W. Long, Milwaukee; M. P. Andrews, Manitowoc; C. F. Conroy, Mil-

waukee; J. A. Halgren, Menomonie; Dennis Pierce, Hales Corners; R. E. Fitzgerald, Milwaukee; M. E. Ross, Brodhead; N. J. Wegmann, Milwaukee; R. J. Schacht, Racine; E. L. Bernhart, Milwaukee; and E. W. Schacht, Racine.

105,300 Visit the Hall of Health; Pictures Tell the Story

ELECTRIC eyes and other counting devices were all insufficient to count the thousands of laymen from all parts of the State who visited the Hall of Health sponsored by the State Medical Society of Wisconsin at the Milwaukee Auditorium, September 11 to 17. Intentionally wide aisles to accommodate the hoped-for crowds were so jammed with people that time after time the guides had to reroute the flow of spectators in the hall. Specially conducted tours were arranged for school children and other groups.

Arrangements were made by Dr. Eben J. Carey, director of exhibits, with radio station WTMJ for a half-hour broadcast explaining the exhibits in the Hall of Health. Mr. Russ Winnie of the announcing staff of WTMJ accompanied Doctor Carey in a tour of the hall, stopping for a short time at each of the booths so that exhibitors could explain the story found in their exhibits. A 200-foot extension cord suspended from the ceiling of the Auditorium permitted transportation of the microphone to each of the booths. After completing this tour, Doctor Carey; the president of the State Medical Society, Doctor Gavin; Mr. Crownhart, and other officers of the Society were interviewed by Mr. Winnie in an effort to place before the radio public a word picture of the health information to be found in the Hall of Health.

The first exhibit in the United States of a purely health nature on such a large scale, the Hall of Health proved to be of intense interest to the thousands of laymen from all walks of life and of all ages who thronged its booths thirteen hours a day. It was not curiosity which characterized this group for they were willing to listen to lectures on the care of the eyesight, to follow patiently the series of charts and exhibits that gave information on various diseases, and to linger long where the story was told of embryology.

The fact that the crowds were interested was best demonstrated by the timing of those who went through the cancer booth (and all of them did). The average individual spent thirteen minutes in that one booth alone, and at this booth, and also others, the crowds formed voluntary lines where they waited from forty-five minutes to an hour and a half to have an opportunity to study the displayed material. At the Hall of Sight the spectators were lined up four abreast, and on the first day it was noted that the average time of an individual in the hall was three hours.

Russ Winnie of WTMJ "on the air" with Dean Carey and President Gavin on opening night.

What was assumed to be an adequate supply of literature in the cancer exhibit was exhausted within twenty-four hours, and the additional supply which was ordered by telephone was likewise exhausted. A total of 40,000 pieces of literature was distributed at this one booth alone. The question box operated by the American Medical

The Camp Transparent Woman draws the crowd.

Association received in the neighborhood of 200 questions a day. Each will be answered by a personal letter.

The value to the public of such a health exhibit in the preservation of human life was vividly demonstrated when a surgeon reported that as a direct result of seeing this exhibit a woman had reported to him with a lump in the breast. The case was one of early cancer and was curable. A physician in attendance at the cancer booth reported that a woman had asked him about a tumor on her shoulder. She was advised to consult her physician and have it removed.

The executive committee of the Board of Trustees, of the American Medical Association, its president, and president-elect were all visitors in the hall on Thursday. All were amazed by the crowds of people that at times so packed the booths that even demonstrators had difficulty in speaking. Dr. Robert L. Parker, secretary of the Iowa State Medical Association, spent an entire day in the Hall of Health and conveys to the membership his admiration for the excellence of the exhibit and the pioneering that had come to such a successful end.

While most of the exhibits appealed to reason, "The Doctor" appealed to the emotions of all. In this special room few made a comment while looking at the sculpticolor presentation and such comments as were made were in whispers. Twenty-five thousand leaflets containing the picture in color were distributed in this one booth alone, and a large number of persons gave orders for reproductions of "The Doctor" that would be suitable for framing for the home.

The Hall of Health, intended to help in bridging the gap between the physician and layman, was scheduled to close at 10:00 p.m. on Friday. However, the hall had to be kept open until nearly midnight. Late-comers

simply refused to leave and an understanding management accommodated them.

With the Crowd

"The State Medical Society of Wisconsin welcomes the opportunity to present to you 'The Transparent Woman' "—greeted our ears as we joined the people entering the Auditorium.

"No one is too young to learn about health," remarked Dr. Eben J. Carey, director of the exhibit, when he found that guards outside the Hall of Health were turning away children under the seventh grade in school. The order, which was actually for those under the age of seven years, was promptly corrected. "If it were not for this precautionary measure against infantile paralysis, we would admit the babes in arms," said Doctor Carey.

"It is magnificent," declared Sir Charles Blackborn after three hours in the hall. "I have had the pleasure of seeing many health exhibits but never such a one—it is a very great credit to medicine." President of the College of Physicians, Sydney, Australia, Doctor Blackborn made a special trip to Milwaukee from Chicago to see the exhibit which had won such praise from officials of the American Medical Association.

"Is it healthy for women to smoke?" inquired one young woman of Doctor Carey after studying the various exhibits. Then before he could reply she said, "They are in the Hygeia booth." We did not hear Doctor Carey's reply.

"It will have far-reaching effect in awakening the public to health work . . ." enthusiastically remarked Dr. J. H. J. Upham, president of the American Medical Association.

"It is a triumph,"—Dr. W. W. Bauer, director of the Bureau of Health and Public Instruction of the American Medical Association.

"Never saw anything like it," said the veteran uniformed guard at the door. "Look at those people; they're really thinking." It was something new to the guard who had watched prizefight and sport event crowds carelessly go through the hall at other shows.

"A high public service,"—Father McCarthy, president of Marquette University.

"The most orderly and studious large crowds that we have ever seen," was reported by the management of the Auditorium. "And instead of your attendance falling off on the last two days, it increased by the hours."

"I couldn't get into my exhibit even to demonstrate it. They don't know I am here," declared one of the exhibitors.

"Questions at the exhibit on dentistry indicated that many people do not realize what a highly specialized mechanism a tooth is or how absence of some element from the diet may affect its development," said another exhibitor.

"This is the first time 'The Transparent Woman' has been shown without an exhibit charge. Wisconsin can well be proud of its wonderful exhibit and crowds,"—Mr. Kaufman of the S. H. Camp Company.

Dr. S. E. Gavin, new chairman of the Council, dicusses the exhibit with Director Barrett of the Milwaukee Museum, and Dean Carey.

"The transparent woman came to town last night all lit up like a Christmas tree," was the headline in one of the local papers. The public was amused by the reporter's comment that we had told all about her "except how to get along with her."

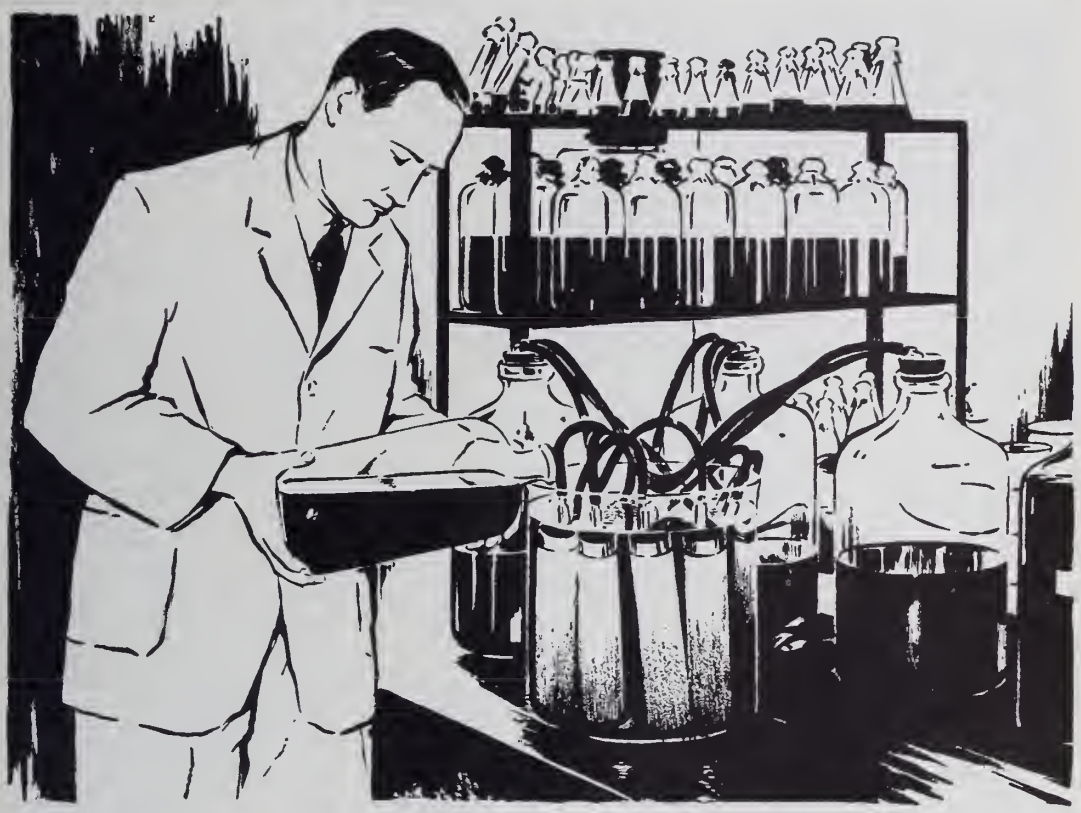
"It is a wonderful show,"—the Honorable Charles B. Perry, Wauwatosa, formerly speaker of the Wisconsin Assembly.

"When I visited the exhibit, I gasped in wonder. What a marvelous machine our human body really is, yet how little we appreciate this fact! * * * What a high calling the physician's really is. Surely when one considers all this, no one can honestly say, as so many do, that doctors care for nothing but money. On the contrary, anyone who has ever been in need of his services, desperately and earnestly, must admit that the doctor is certainly our best friend and is well worth consideration and honor as such."—Mrs. William E. Doehling, 2211 West Clarke Street, Milwaukee (excerpt from correspondence column, Milwaukee Journal).

"A high type of public service,"—the Honorable Conrad Shearer of Kenosha, who brought his family with him.

"The most striking thing outside 'The Transparent Woman' is that exhibit—'The Doctor'—it hits you right in your heart,"—Mr. Harry Bell, secretary of the Milwaukee Association of Commerce.

"Das ist Wunderbar—so vas habbe ich nicht gedankt—so lange ich lebe," so declared one middle-



Improved Antitoxins and Immune Serums

● Constant effort in the Lilly Research Laboratories further to concentrate and refine antitoxins and immune serums has resulted in a decrease in protein content per unit, a high unitage per cubic centimeter, a 35 to 50 percent reduction in dosage volume, and a lowered incidence of serum reactions.

The following are supplied: Antimeningococcic Serum, Concentrated, Lilly; Diphtheria Antitoxin, Purified, Concentrated, Lilly; Diphtheria Toxoid, Lilly; Diphtheria Toxoid, Alum Precipitated, Lilly; Erysipelas Antistreptococcic Serum, Lilly; Gas-Gangrene Antitoxin (Combined), Lilly; Smallpox Vaccine, Lilly; Tetanus Antitoxin, Purified, Concentrated, Lilly; Typhoid Mixed Vaccine, Lilly; and Typhoid Vaccine, Prophylactic, Lilly.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

aged woman, a resident of Milwaukee for five years, so she voiced in German her thoughts.

"I have handled conventions and exhibits for years, but never have I seen anything like it—it is most remarkable,"—Mr. Earl Ferguson, manager, Convention Bureau, Milwaukee.

"Furthermore, people really want to know as much about their own bodies as they do their automobiles. They can get a new automobile," commented Doctor Carey . . . "If we are to succeed in preventive medicine, especially among middle-aged people, where it is needed the most, the profession must create intelligent cooperation among an intelligent people."

1,245 Members Registered at Milwaukee Session

Abelmann, T. C. H. ____Watertown
Adamkiewicz, J. J. _____Milwaukee
Adamski, A. W. _____Racine
Albino, J. M. _____Racine
Alcorn, M. W. _____Burlington
Allebach, H. K. B. _____Milwaukee
Allen, Jessie P. _____Beloit
Allen, L. L. _____Milwaukee
Allen, S. C. _____Waterloo
Allen, W. J. _____Beloit
Altenhofen, A. R. _____Milwaukee
Amundson, K. K. _____Cambridge
Anderson, F. G. _____Eau Claire
Andrew, C. H. _____Platteville
Andrews, M. P. _____Manitowoc
Ansfield, D. J. _____Milwaukee
Armbruster, J. L. _____Milwaukee
Armstrong, C. A._Prairie du Chien
Arveson, R. G. _____Frederic
Augur, A. _____Milwaukee
Ausman, D. C. _____Milwaukee
Aylward, T. J. _____Milwaukee

Baasen, J. M. _____Mt. Calvary
Bach, E. C. _____Milwaukee
Bach, J. A. _____Milwaukee
Bach, M. J. _____Milwaukee
Bachhuber, A. E. _____Kaukauna
Bachhuber, H. A. _____Sauk City
Backus, E. A. _____Milwaukee
Baer, C. A. _____Milwaukee
Baker, R. G. _____Tomahawk
Baldwin, R. M. _____Beloit
Banyai, A. L. _____Wauwatosa
Baranowski, S. A. _____Milwaukee
Bardenwerper, H. E. ___Milwaukee
Bargholtz, W. E. _____Reeseville
Barnes, H. A. _____Milwaukee
Barnes, Herbert _____Delafield
Barnes, J. S. _____Milwaukee
Barnet, E. G. ___Wisconsin Rapids
Barr, A. H. _____Port Washington
Barrock, J. J. _____Milwaukee
Barta, E. F. _____Milwaukee
Bartels, G. W. _____Janesville
Bauer, K. T. _____West Bend
Baumle, C. E. _____Monroe
Bayley, W. E. G. _____La Crosse
Becker, B. A. _____Silver Lake
Becker, C. J. _____Milwaukee
Beckman, H. _____Milwaukee
Beebe, C. D. _____Sparta
Beebe, D. C. _____Sparta
Beffel, J. M. _____Milwaukee
Beglinger, H. F. _____Neenah
Beeson, H. B. _____Racine
Behnke, C. H. _____Oshkosh
Beier, A. L. _____Chippewa Falls
Belknap, E. L. _____Milwaukee
Bell, P. P. _____Madison
Bellehumeur, C. E. P. __Milwaukee
Belson, H. J. _____Manitowoc
Benjamin, H. B. _____Wauwatosa
Benn, H. P. _____Stevens Point
Benn, V. H. _____Rosholt
Bennett, J. F. _____Burlington
Bennett, L. J. __Wisconsin Rapids
Benson, G. H. ____Richland Center
Benton, J. L. _____Appleton
Benton, R. W. _____Milwaukee
Bergen, R. D. _____Milwaukee
Bergstrom, L. V. _____Milltown
Bernhard, L. A. _____Milwaukee
Bernhart, E. L. _____Milwaukee
Bickel, W. H. _____Milwaukee
Bickler, E. P. _____Milwaukee
Biller, S. E. _____Milwaukee
Binnie, Helen A. _____Kenosha
Bird, M. D. _____Marinette
Bitter, R. H. _____Oshkosh
Blanchard, P. B. _____Cedarburg
Bleckwenn, W. J. _____Madison
Blount, W. P. _____Milwaukee
Blumenthal, R. W. ____Milwaukee
Bock, A. B. C. _____Sheboygan
Bodden, A. M. _____Milwaukee
Bohorfoush, J. G. _____Madison
Bolger, J. V. _____Milwaukee
Bolles, C. S. _____De Pere
Bonner, N. A. _____Manitowoc
Borchardt, M. A. ____New London
Boren, J. W. _____Marinette
Borman, M. C. _____Milwaukee
Bornstein, S. L. _____Milwaukee
Borsack, K. K. _____Fond du Lac
Boudry, M. O. _____Waupaca
Bourne, N. W. _____Milwaukee
Bowen, E. W. _____Watertown
Bowen, H. P. _____Watertown
Boyd, G. T. _____Fond du Lac
Brady, C. J. _____Lake Geneva
Brah, A. J. _____Milwaukee
Brehm, H. G. _____Racine
Brey, P. F. _____Milwaukee
Brindley, B. I. _____Madison
Brook, J. J. _____Milwaukee
Brooks, E. H. _____Appleton
Brown, E. B. _____Beloit
Brown, G. V. I. _____Milwaukee
Browne, C. F. _____Racine
Bruins, D. _____Milwaukee
Brumbaugh, E. V. _____Milwaukee
Brussock, W. A. _____Wauwatosa
Bryan, A. W. _____Madison
Buckley, W. E. _____Racine
Budney, C. L. _____Milwaukee
Bump, W. S. _____Rhinelander
Burbach, T. H. _____Milwaukee
Burgardt, G. F. _____Milwaukee
Burke, C. F. _____Madison
Burke, Myra E. _____Madison
Burkhardt, E. W._Menomonee Falls
Burns, R. E. _____Madison
Bussey, A. D. _____Two Rivers
Butler, F. E. _____Menomonie
Byrnes, M. B. _____Milwaukee

Cahana, S. _____Milwaukee
Caldwell, H. M. _____Columbus
Callan, P. L. _____Milwaukee
Campbell, P. E. _____Waukesha
Campbell, R. E. _____Madison
Campbell, W. B. _____Waukesha
Canavan, J. P. _____Neenah
Cannon, H. J. _____Milwaukee
Cantwell, A. A. _____Shawano
Cantwell, R. C. _____Shawano
Caples, B. M. _____Waukesha
Carey, E. J. _____Milwaukee
Carhart, G. A. _____Milwaukee
Carl, E. E. _____Milwaukee
Carlson, G. W. _____Appleton
Carlsson, E. S. _____La Crosse
Carns, Marie L. _____Madison
Carson, W. J. _____Milwaukee
Carter, R. M. _____Green Bay
Cary, E. C. _____Reedsville
Chapman, V. A. _____Milwaukee
Charles, J. D. _____Milwaukee
Christensen, F. C. _____Racine
Christensen, H. H. _____Wausau
Christensen, H. W. _____Wausau
Christiansen, C. H. _____Superior
Christiansen, J. _____Waukesha
Christofferson, A. M. ____Waupaca
Christofferson, H. H. _____Colby
Clark, F. T. _____Waupun
Clark, O. C. _____Oconomowoc
Clauson, C. T. _____Milwaukee
Cleary, E. M. _____Milwaukee
Cleary, J. H. _____Kenosha
Cleveland, D. _____Milwaukee
Coffey, C. J. _____Milwaukee
Coffey, S. E. _____Milwaukee
Cole, D. F. _____Ripon
Colignon, J. C. _____Green Bay
Comstock, Elizabeth _____Arcadia
Conley, J. M. _____Oshkosh
Conroy, C. F. _____Milwaukee
Constantine, C. E. _____Racine
Conway, J. P. _____Milwaukee
Cook, E. F. _____Milwaukee
Cook, F. S. _____Eau Claire
Cook, H. E. _____Milwaukee
Coon, H. M. _____Statesan
Copps, L. A. _____Marshfield
Corr, J. T. _____Racine
Corso, Xavier _____Beaver Dam
Costello, W. H. _____Randolph
Creasy, L. E. _____Monroe
Creswell, C. M. _____Kenosha
Cron, R. S. _____Milwaukee
Crosby, E. P. _____Stevens Point
Crosley, G. E. _____Milton
Crowe, N. F. _____Delavan
Cummings, E. F. _____Oshkosh
Cunningham, Wilson ___Platteville
Curran, W. P. _____Antigo
Currer, P. M. _____Milwaukee
Curtin, J. G. _____Milwaukee
Cushing, Eleänore _____Milwaukee
Cutler, J. S. _____Wauwatosa

Daley, D. M. _____La Crosse
Dallwig, E. L. _____Wauwatosa

How Much Sun Does the Infant Really Get?

Not very much: (1) When the baby is bundled to protect against weather or (2) when shaded to protect against glare or (3) when the sun does not shine for days at a time. Oleum Percomorphum offers protection against rickets 365¼ days in the year, in measurable potency and in controllable dosage. ***Use the sun, too.***

Oleum Percomorphum Price Substantially Reduced, Sept. 1, 1936!

We are hopeful that by the medical profession's continued whole-hearted acceptance of Oleum Percomorphum, liquid and capsules (also Mead's Cod Liver Oil Fortified With Percomorph Liver Oil), it will be possible for us to make the patient's "vitamin nickel" (A and D) stretch still further.

Mead Johnson & Company, Evansville, Indiana, U. S. A., does not advertise any of its products to the public.

Dalton, R. J. _____Milwaukee
Daly, F. P. _____Chippewa Falls
Dana, D. B. _____Kewaunee
Danforth, Q. H. _____Oshkosh
Daniels, E. R. _____Statesan
Davis, F. A. _____Madison
Davis, K. W. _____Omro
Davis, M. D. _____Milton
Dawson, D. L. _____Rice Lake
Dean, F. K. _____Madison
Dean, Joseph _____Madison
Dean, J. C. _____Madison
Dearholt, H. E. _____Milwaukee
Deerhake, W. A. _____Waupun
De Fazio, S. F. _____Kenosha
Dehmel, R. A. _____Germantown
Dehne, W. O. _____Appleton
Deicher, H. F. _____Plymouth
Demeter, N. D. _____Milwaukee
Dempsey, G. P. _____So. Milwaukee
Dennis, J. F. _____Waterloo
De Nosaquo, Samuel __Milwaukee
Denys, G. F. _____Green Bay
Derse, F. R. _____Milwaukee
Devine, G. C. _____Ontario
Devine, H. A. _____Fond du Lac
Devine, J. C. _____Fond du Lac
Deysach, L. J. _____Milwaukee
Dickelmann, L. E. _____Oshkosh
Dierker, O. F. _____Watertown
Dieterle, J. O. _____Milwaukee
Dietz, R. J. _____Waterford
Dishmaker, M. C. _____Milwaukee
Dockry, L. E. _____Kewaunee
Docter, John _____Racine
Dodd, J. M. Sr. _____Ashland
Doege, K. H. _____Marshfield
Doege, P. F. _____Marshfield
Doerr, August _____Milwaukee
Domann, W. G. __Menomonee Falls
Donlin, W. F. _____Belleville
Donnelly, F. J. _____North Lake
Dorpat, Louis _____Milwaukee
Dougherty, J. S. _____Suring
Drew, F. E. _____Milwaukee
Drexel, A. _____Milwaukee
Drissen, W. H. __Port Washington
Duer, G. R. _____Marinette
Dufour, E. H. _____Hayward
Dundon, J. R. _____Milwaukee
Dunker, G. O. _____Milwaukee
Dunn, A. G. _____Stevens Point
Dvorak, H. J. _____Milwaukee

Eagan, R. L. _____La Crosse
Ebert, R. O. _____Oshkosh
Echols, C. M. _____Milwaukee
Edelman, Elsa B. _____Milwaukee
Edmondson, C. C. _____Waukesha
Edwards, A. C. _____Madison
Edwards, W. C. __Richland Center
Egan, W. J. _____Milwaukee
Egloff, L. W. _____Pewaukee
Eigenberger, Friedrich_Sheboygan
Eisenberg, Edward _____Milwaukee
Eisenberg, J. J. _____Milwaukee
Eisenberg, L. A. _____Milwaukee
Elconin, D. V. _____Milwaukee
Engel, A. C. _____New Holstein
Ennis, S. A. J. _____Shullsburg
Enright, J. A. _____Milwaukee
Enzer, Norbert _____Milwaukee
Epley, O. H. _____New Richmond
Epperson, P. S. _____Milwaukee
Epstein, Ely _____Milwaukee
Erickson, M. T. _____Highland
Ernst, G. R. _____Milwaukee
Evans, C. A. _____Milwaukee
Evans, J. A. _____La Crosse

Evenson, E. E. _____Wittenberg
Everts, E. L. _____Milwaukee
Ewell, G. H. _____Madison

Falk, V. S. _____Milwaukee
Falstad, C. H. _____Eau Claire
Farrell, H. J. _____Milwaukee
Fauerbach, Louis _____Madison
Fazen, L. E. _____Racine
Fechter, F. J. _____Milwaukee
Federman, E. H. _____Montello
Federspeil, M. N. _____Milwaukee
Feldt, R. H. _____Milwaukee
Fellman, G. H. _____Milwaukee
Fencil, Y. J. _____Casco
Fernan-Nunez, Marcos__Milwaukee
Fidler, Charles _____Milwaukee
Fiebiger, G. J. _____Waterloo
Fiedler, O. A. _____Sheboygan
Fillbach, H. E. _____Hazel Green
Fine, J. M. _____Cudahy
Finn, W. C. _____Fond du Lac
Fisher, Laura M. _____Milwaukee
Fisher, R. F. _____Wausau
Fisher, R. S. _____Allenton
Fisk, Charlotte _____Madison
Fitzgerald, G. F. _____Milwaukee
Fitzgerald, J. J. _____Eagle
Fitzgerald, R. E. _____Milwaukee
Fitzbiggon, W. _____Milwaukee
Flaherty, G. S. _____So. Milwaukee
Flannery, J. V. _____Eagle River
Florin, A. C. _____Fond du Lac
Foerster, H. R. _____Milwaukee
Foerster, O. H. _____Milwaukee
Foley, L. J. _____Milwaukee
Foley, M. E. _____St. Nazianz
Folsom, W. H. _____Fond du Lac
Fons, J. W. _____Milwaukee
Ford, W. A. _____Sheboygan
Ford, W. B. _____Milwaukee
Ford, W. W. _____Green Bay
Forkin, G. E. _____Menasha
Fortier, C. A. H. _____Milwaukee
Fortner, W. H. _____Bloomer
Foshion, H. V. _____Algoma
Fox, G. W. _____Milwaukee
Fox, J. C. _____La Crosse
Fox, M. J. _____Milwaukee
Francois, S. J. _____New Glarus
Franklin, I. _____Milwaukee
Frawley, W. J. _____Appleton
Frechette, F. M. _____Janesville
Frederick, R. H. _____West Allis
Fredrick, H. H. F. _____Westfield
Fredrick, H. Y. _____Westfield
Freeman, J. M. _____Wausau
Frey, P. G. _____Milwaukee
Frick, J. C. _____Waukesha
Frick, Lewis _____Athens
Friend, L. J. _____Beloit
Frisbie, R. L. _____Rhinelander
Friske, O. W. _____Beloit
Froede, H. E. _____Jackson
Froelich, J. A. _____Milwaukee
Fuller, M. H. _____Green Bay
Fuson, H. S. _____Eau Claire

Gabor, M. E. _____Milwaukee
Galasinski, R. E. _____Milwaukee
Gale, J. W. _____Madison
Gallaher, D. M. _____Appleton
Ganser, W. J. _____Madison
Gantz, H. A. _____Waukesha
Gardner, L. C. _____Fond du Lac
Garens, R. W. _____Milwaukee
Garland, J. G. _____Milwaukee
Garvey, J. L. _____Milwaukee
Gascoigne, C. C. _____Kohler

Gates, Eugene _____Two Rivers
Gavin, S. E. _____Fond du Lac
Gebhard, U. E. _____Milwaukee
Geiger, Sara G. _____Milwaukee
Gertenbach, E. O. _____Milwaukee
Gibson, H. V. _____Eau Claire
Giesen, C. W. _____Superior
Gilbertsen, C. R. _____Janesville
Gilchrist, R. T. _____Milwaukee
Gillette, H. E. _____Pardeeville
Gilmer, L. T. _____Milwaukee
Gingrass, R. P. _____Milwaukee
Gnagi, W. B. _____Monroe
Goggins, J. W. _____Chilton
Goldberg, Nathan _____Milwaukee
Gonce, J. E., Jr. _____Madison
Gorder, A. C. _____Milwaukee
Gordon, J. S. _____Milwaukee
Gramling, E. H. _____Milwaukee
Gramling, Frances K. __Milwaukee
Gramling, H. J. _____Milwaukee
Gramling, J. J. _____Milwaukee
Gray, A. W. _____Milwaukee
Gray, R. J. _____Evansville
Gray, W. K. _____Milwaukee
Greeley, H. P. _____Madison
Greenberg, A. I. _____Milwaukee
Greenthal, R. M. _____Milwaukee
Griffith, J. C. _____Milwaukee
Grigsby, R. O. _____Ashland
Grimm, J. J. _____Milwaukee
Grob, A. R. F. _____Milwaukee
Grossmann, E. E. _____Milwaukee
Grossmann, L. L. _____Milwaukee
Grotjan, W. F. _____Milwaukee
Grover, F. L. _____Hartland
Grumke, E. H. _____Madison
Gudex, V. A. _____Milwaukee
Guenther, O. F. _____Campbellsport
Guilford, H. M. _____Madison
Gundersen, A. H. _____La Crosse
Gundersen, Gunnar _____La Crosse
Gundersen, S. B. _____La Crosse
Gunther, T. J. _____Sheboygan
Gute, E. B. _____Milwaukee
Guth, H. K. _____Waupun

Haasl, H. W. _____Peshtigo
Habeck, E. A. W. _____Milwaukee
Habbe, J. E. _____Milwaukee
Haberland, E. J. _____Milwaukee
Hackett, J. H. _____Milwaukee
Haessler, Bertha T. _____Milwaukee
Haessler, F. H. _____Milwaukee
Hagerman, F. H. _____Milwaukee
Haines, M. C. _____Oshkosh
Hake, C. B. _____Milwaukee
Halgren, J. A. _____Menomonie
Hall, R. M. _____Milwaukee
Hamilton, W. P. _____Dodgeville
Hammond, F. W. _____Manitowoc
Hammond, R. W. _____Manitowoc
Hanko, J. E. _____Cazenovia
Hankwitz, A. W. _____Milwaukee
Hansen, A. C. _____Milwaukee
Hansen, H. J. _____Sheboygan Falls
Hansen, J. W. _____Milwaukee
Hansen, John _____Glenbeulah
Hansmann, G. H. _____Milwaukee
Hanson, O. H. _____Fort Atkinson
Hanson, W. C. _____Racine
Harder, H. _____Milwaukee
Hardgrove, J. H. _____Eden
Hardgrove, Maurice _____Milwaukee
Hardy, C. F. _____Milwaukee
Hargarten, L. J. _____Milwaukee
Harper, C. A. _____Madison
Harper, C. S. _____Madison
Harrington, E. T. _____Milwaukee

BISMUTH SUBSALICYLATE

U. S. S. P. CO.

for Treatment of Syphilis

ACCEPTED AMERICAN MEDICAL ASSN

Bismuth Subsalicylate offers the following advantages:

- Relatively non-toxic when the dose is properly controlled.
- No contraindications when administered following arsphenamine or mercury.
- Practically non-irritating so far as local pain from the injection is concerned, and freedom from abscesses at site of injection.
- U. S. S. P. Co. Bismuth Subsalicylate does not settle solidly—easy to shake.

Write for catalog or information on any product in which you are interested.

UNITED STATES USSP STANDARD PRODUCTS

U.S. STANDARD PRODUCTS CO.
WOODWORTH, WISCONSIN.

DOCTORS WHO DON'T SMOKE

DOCTORS who do not smoke are often called upon to advise patients with irritation of the nose and throat due to smoking.

It is worth knowing that only Philip Morris have been *proved*★ less irritating than other cigarettes. This is due to the use of diethylene glycol exclusively as the hygroscopic agent. Ordinary cigarettes use glycerine.

Try Philip Morris on your smoking patients. Watch the effect. Verify for yourself the definite superiority of Philip Morris.

PHILIP MORRIS & CO.

PHILIP MORRIS & CO. Ltd. Inc.
119 Fifth Avenue New York

Please send me reprints of papers from

★*Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245* ☐
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154 ☐
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11 ☐
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60 ☐

SIGNED: _____

ADDRESS _____

CITY _____ STATE _____ WIS.

Harrington, T. L. ___Stevens Point
Harris, A. J. _____Adams
Harris, C. F. _____Manitowoc
Harris, J. W. _____Madison
Hartman, E. C. _____Janesville
Hartman, R. C. _____Janesville
Hartridge, T. L. _____Oconomowoc
Harvey, J. R. _____Footville
Hassall, J. C. _____Oconomowoc
Haug, J. F. _____Milwaukee
Hausmann, N. E. _____Kewaskum
Hayman, C. S. _____Boscobel
Heeb, H. J. _____Milwaukee
Heiden, H. H. _____Sheboygan
Heidner, A. H. _____West Bend
Heidner, F. C. _____Milwaukee
Heifetz, E. C. _____Milwaukee
Heinan, F. C. _____West Allis
Heise, H. A. _____Milwaukee
Helm, H. M. _____Beloit
Helmbrecht, M. G. _____Elkhorn
Helmes, L. O. _____Oshkosh
Henika, G. W. _____Madison
Henken, J. F. _____Racine
Heraty, J. A. _____Milwaukee
Heraty, J. E. _____La Crosse
Herner, W. L. _____Milwaukee
Hertel, A. J. _____Milwaukee
Herzog, J. V. _____Elkhorn
Hicks, E. V. _____New Glarus
Higgins, S. G. _____Milwaukee
Hildebrand, G. J. _____Sheboygan
Hilger, W. A. _____Milwaukee
Hill, N. A. _____Madison
Hiller, R. I. _____Milwaukee
Hipke, G. A. _____Milwaukee
Hipke, L. W. _____Milwaukee
Hipke, M. M. _____Milwaukee
Hirschboeck, J. G. ____Forestville
Hirsh, L. H. _____West Allis
Hittner, V. J. _____Seymour
Hitz, H. B. _____Milwaukee
Hitz, J. B. _____Milwaukee
Hodgson, A. J. _____Waukesha
Hoel, K. P. _____Pewaukee
Hoermann, B. A. _____Milwaukee
Hoffman, E. F. _____Madison
Hoffmann, G. H. _____West Allis
Hoffmann, J. G. _____Hartford
Hoffmann, L. A. ____Campbellsport
Hofmeister, F. J. _____West Allis
Hogan, J. H. _____Racine
Hogan, J. M. _____Oshkosh
Holbrook, A. A. _____Milwaukee
Holbrook, A. T. _____Milwaukee
Hollenbeck, S. W. _____Milwaukee
Holmes, B. H. _____Racine
Hood, A. J. _____Milwaukee
Horwitz, J. J. _____Milwaukee
Hough, A. G. _____Beaver Dam
Houghton, W. J. _____Milwaukee
Howard, M. Q. _____Wauwatosa
Howard, T. J. _____Milwaukee
Howe, H. W. _____Racine
Hoyme, Gjermund _____Eau Claire
Hoyt, G. E. _____Milwaukee
Huber, H. H. _____Milwaukee
Hudson, E. D. _____Lake Geneva
Hudson, L. A. _____Sauk City
Huff, F. C. _____Sturgeon Bay
Hughes, B. J. _____Winnebago
Hughes, J. R. _____Milwaukee
Hugo, D. G. _____Oshkosh
Huibregtse, W. G. _____Sheboygan
Hull, H. H. _____Brandon
Hurlburt, J. A. _____Madison
Hurth, O. J. _____Cedarburg
Huston, John _____Milwaukee

Huth, E. P. _____Belgium
Huth, M. F. _____Baraboo
Hutter, A. M. _____Fond du Lac

Ingersoll, B. P. _____Loyal
Ingersoll, R. S. _____Oxford
Irvine, R. K. _____Manawa
Irwin, G. H. _____Lodi
Irwin, R. S. _____Milwaukee
Ison, G. W. _____Crandon

Jackson, A. S. _____Madison
Jackson, Edward _____Milwaukee
Jackson, R. H. _____Madison
Jacobson, E. B. _____Milwaukee
Jamieson, R. D. _____Racine
Janney, F. R. _____Wauwatosa
Jeffers, D. H. _____Lake Geneva
Jefferson, R. A. _____Milwaukee
Jegi, H. A. _____Galesville
Jekel, J. M. _____Milwaukee
Jenner, A. G. _____Milwaukee
Jenner, J. A. _____Milwaukee
Jensen, F. G. _____Menasha
Jermain, W. M. _____Milwaukee
Jewell, E. L. _____Loganville
Jochimsen, M. A. _____Grafton
John, G. W. _____Beloit
Johnson, A. W. ____Hales Corners
Johnson, Frances _____Milwaukee
Johnson, F. G. _____Iron River
Johnson, Fred _____Eau Claire
Johnson, J. M. _____Ripon
Johnson, W. L. _____Janesville
Johnston, T. L. _____Milwaukee
Jones, G. S. _____Genesee Depot
Jones, M. L. _____Wausau
Jorgenson, H. L. _____Marinette
Jorris, E. H. _____Sparta
Joseph, W. A. _____Milwaukee
Judge, T. A. _____Milwaukee

Kahn, Joseph _____Milwaukee
Kaiser, L. F. _____Rhinelander
Kane, J. J. _____Prairie du Chien
Karr, J. K. _____Milwaukee
Karsten, J. H. _____Horicon
Kasak, Michael _____Wauwatosa
Kassowitz, K. E. _____Milwaukee
Kasten, H. E. _____Beloit
Kastner, A. L. _____Milwaukee
Kearns, W. M. _____Milwaukee
Keenan, L. J. _____Fond du Lac
Kehl, K. C. _____Racine
Kelley, J. M. _____Cato
Kelly, G. F. _____Milwaukee
Kennedy, W. R. _____Milwaukee
Kenney, H. J. _____Delavan
Kenny, H. F. _____Waukesha
Kettelhut, E. J. _____Milwaukee
Kidder, E. E. _____Stevens Point
Kierzkowski, C. V. ___Beaver Dam
Kilian, A. D. _____Milwaukee
Kilkenny, G. S. _____Milwaukee
King, J. J. _____Milwaukee
King, J. M. _____Milwaukee
Kingsbury, L. H. _____Statesan
Kishpaugh, H. W. _____Beloit
Kissinger, C. A. _____Milwaukee
Klein, T. W. _____Janesville
Kleinboehl, J. W. _____Milwaukee
Kleinpell, W. C. _____Madison
Kleis, W. J. _____Milwaukee
Kline, C. L. _____Racine
Klumb, Milton _____Milwaukee
Knauf, F. P. _____Kiel
Knauf, J. A. _____Stockbridge
Knauf, N. J. _____Chilton

Knox, E. S. _____Green Bay
Knudson, A. H. _____Milwaukee
Koch, H. C. _____Berlin
Koch, V. W. _____Janesville
Kocovsky, E. C. _____Wauwatosa
Koehler, A. G. _____Oshkosh
Koehler, J. P. _____Milwaukee
Kohl, Martha _____Eau Claire
Kohn, S. E. _____Milwaukee
Konnak, W. F. _____Racine
Kosanke, F. E. _____Watertown
Kovacs, Arthur _____Milwaukee
Kozina, F. J. _____Milwaukee
Krahn, G. W. _____Oconto Falls
Kramoris, F. H. _____Milwaukee
Krembs, F. R. _____Stevens Point
Kretchmar, L. H. _____Milwaukee
Kretchmar, Morris _____Milwaukee
Kretlow, F. A. _____Milwaukee
Kreul, R. W. _____Racine
Kristjanson, H. T. _____Milwaukee
Kriz-Hettwer, Rose A. _Milwaukee
Krohn, Robert __Black River Falls
Kronzer, J. J. _____Oshkosh
Krueger, Bernhard _____Cudahy
Krumbiegel, E. R. _____Milwaukee
Krygier, A. A. _____Milwaukee
Krygier, W. L. _____Milwaukee
Krzysko, S. L. _____Milwaukee
Kuhn, H. J. _____Milwaukee
Kuhn, M. J. _____Milwaukee
Kurten, R. M. _____Racine
Kurtz, C. M. _____Milwaukee
Kusterman, A. F. _____Milwaukee

LaBreck, F. A. _____Eau Claire
Lademan, O. E. _____Milwaukee
Ladewig, A. W. _____Milwaukee
Ladewig, Harry _____Milwaukee
Lahmann, A. H. _____Milwaukee
Laird, J. J. _____Black Creek
Lando, D. H., Jr. _____Milwaukee
Lang, V. F. _____Milwaukee
Langenfeld, P. F. _____Theresa
Langjahr, A. R. _____Milwaukee
Lawler, E. M. _____Cudahy
Layton, O. M. _____Fond du Lac
Leahy, J. D. _____Park Falls
Leaper, W. E. _____Green Bay
Le Cron, W. L. _____Milwaukee
Lee, P. A. _____Milwaukee
Leeson, F. W. _____Beloit
Lehmann, F. W. _____Hartford
Leicht, Phillip _____Lake Mills
Lenfestey, J. P. _____De Pere
Leonard, C. W. _____Fond du Lac
Leonard, T. A., Jr. _____Madison
Lettenberger, Joseph __Milwaukee
Lewis, Marian _____Milwaukee
Lieberman, Benjamin __Milwaukee
Liefert, W. C. _____Milwaukee
Lifschutz, L. M. _____Racine
Light, George _____Milwaukee
Lillie, O. R. _____Milwaukee
Lindner, A. M. _____Racine
Lindsay, W. T. _____Madison
Lipman, W. H. _____Kenosha
Littig, L. V. _____Madison
Lobedan, E. T. _____Milwaukee
Lockhart, C. W. _____Mellen
Lockhart, J. W. _____Oshkosh
Long, C. W. _____Milwaukee
Lorenz, W. F. _____Madison
Lotz, Oscar _____Milwaukee
Loughlin, D. M. _____Milwaukee
Loughlin, T. F. _____Hartford
Loughnan, A. J. _____Oconomowoc
Lowe, J. W. _____Ashland

MAPHARSEN

MAPHARSEN is easily and quickly prepared for injection. Single doses can be dissolved in syringe and ampoule, without necessitating the use of sterile beakers or other apparatus.

In contrast to the arsphenamines, Mapharsen solutions do not become more toxic on standing; agitation or exposure to air does not increase their toxicity. Haste in completing injections immediately after preparation of solutions is unnecessary.

With the patient either in a sitting or recumbent position, injection can be made according to the usual intravenous technic. Mapharsen solutions should be injected *rapidly*—at the rate of 10 cc. (the entire dose) within 30 seconds after the needle is in place.

Mapharsen treatment is conveniently administered. The ease and rapidity of injection minimize discomfort and encourage patient cooperation.

Mapharsen (meta-amino-para-hydroxy-phenylarsine oxide hydrochloride) is available in single dose ampoules containing 0.04 and 0.06 Gm., each in individual packages with or without distilled water. It is also supplied in ten dose ampoules, containing 0.4 and 0.6 Gm., for use by hospitals and clinics

PARKE, DAVIS & COMPANY

THE WORLD'S LARGEST MAKERS OF PHARMACEUTICAL AND BIOLOGICAL PRODUCTS

Lowe, R. C. ----------Neenah
Ludden, H. D. -----Mineral Point
Ludden, R. H. ----------Viroqua
Lynch, H. M. ----------West Bend
McBeath, N. E. --------Milwaukee
McCabe, J. M. --------Sun Prairie
McCabe, John ---------Milwaukee
McCabe, P. G. ------Fond du Lac
McCann, Edith --------Milwaukee
McCarey, A. J. --------Green Bay
McCarthy, G. W. --------Kenosha
McCarty, R. T. ----------Appleton
McConnell, E. D. ------Darlington
McCormick, G. L. ------Marshfield
McCormick, S. A. --------Madison
McCormick, T. F. ------Milwaukee
McDonald, C. F. -------Milwaukee
McDonald, R. E. -------Milwaukee
McGarty, M. A. --------La Crosse
McGary, Lester ----------Madison
McGill, J. W. ----------Superior
McGrath, E. F. ----------Appleton
McGuire, W. H. --------Janesville
McIntosh, R. L. ----------Madison
McKillip, W. J. --------Milwaukee
McKittrick, N. W. -----Milwaukee
McMahon, A. E. ----Glenwood City
McMahon, F. B. --------Milwaukee
McMahon, H. O. -------Milwaukee
McMahon, J. P. --------Milwaukee
McNamara, L. V. --------Montello
McNary, J. F. ----------Milwaukee
McNaughton, W. T. ----Milwaukee
McNevins, E. S. --------Green Bay
McRoberts, J. W. ------Sheboygan
MacCollum, C. L. R. ---Manitowoc
MacCornack, R. L. -----Whitehall
MacDonald, W. H. ---Lake Geneva
MacGregor, J. W. --------Portage
MacInnis, Florence E. --Milwaukee
MacLaren, J. B. ---------Appleton
Maas, W. C. ----------Rio
Macaulay, E. M. ----------Wausau
Madison, F. W. --------Milwaukee
Madison, J. D. ---------Milwaukee
Malloy, T. E. ------Random Lake
Malnekoff, B. J. -------Milwaukee
Malone, F. A. ----------Waterford
Malone, J. Y. ----------Milwaukee
Maloof, G. J. ----------Madison
Mannis, Harry --Black River Falls
Marek, F. B. ----------Racine
Margoles, F. C. --------Milwaukee
Markson, S. M. --------Milwaukee
Marquardt, C. R. ------Milwaukee
Marsh, H. E. ----------Madison
Marshall, S. B. --------Hollandale
Marshall, V. F. ----------Appleton
Martens, E. W. --------Milwaukee
Martin, H. G. ----------Milwaukee
Mason, E. W. ----------Milwaukee
Mason, P. B. ----------Sheboygan
Mastalir, L. O. --------Burlington
Mauermann, J. F. ---------Monroe
Mauthe, Walter ------Whitewater
May, J. V. ----------Marlnette
Mayfield, A. L. ----------Kenosha
Meanwell, W. E. ---------Madison
Meany, S. G. ----------East Troy
Megna, Salvatore ------Milwaukee
Mehigan, D. D. --------Milwaukee
Meier, Wm. G., Jr. ------Sheboygan
Meloy, G. E. ----------Milwaukee
Mendeloff, Hyman -----Milwaukee
Mensing, E. H. --------Milwaukee
Merten, A. N. E. -------Milwaukee
Meusel, H. H. ----------Oshkosh
Meyer, O. O. ----------Madison
Middleton, W. S. ---------Madison
Midelfart, H. C. U. ----Eau Claire
Miller, E. A. ----------Clintonville
Miller, E. W. ----------Milwaukee
Miller, H. L. ----------Milwaukee
Miller, H. C. ----------Racine
Mills, R. G. ----------Fond du Lac
Milson, Louis ----------Green Bay
Minahan, J. J. ----------Chilton
Minahan, P. R. --------Green Bay
Mishoff, I. D. ----------Milwaukee
Mitchell, R. E. --------Eau Claire
Mitchell, S. R. ---------Milwaukee
Mollinger, S. M. -------Milwaukee
Molsberry, J. M. -------Milwaukee
Monroe, M. E. ----------Hartford
Monsted, J. W. -------New London
Montgomery, R. C. ------Madison
Montgomery, R. P. ----Milwaukee
Moon, J. F. ----------Baraboo
Moore, L. A. ----------Monroe
Morgan, J. E. ---------Milwaukee
Morgan, S. F. ---------Milwaukee
Morlarty, L. J. -------Two Rivers
Morneau, L. F. -------Bear Creek
Morrison, R. C. ----------Madison
Morse, L. M. ----------Neillsville
Morter, C. W. ---------Milwaukee
Morter, R. E. ----------Milwaukee
Morton, S. A. ----------Milwaukee
Moss, J. G. ----------Westfield
Mowry, W. A. ----------Madison
Mudroch, J. A. ---------Columbus
Mueller, G. F. C. ------Milwaukee
Mueller, J. F. ----------Plymouth
Mulsow, J. E. ----------Milwaukee
Murphy, F. D. ---------Milwaukee
Murphy, J. A. ---------Milwaukee
Murphy, W. J. --------Milwaukee

Nadeau, A. T. ----------Marinette
Nadeau, E. G. ---------Green Bay
Nammacher, T. H. ---Oconomowoc
Natenshon, A. L. ------Milwaukee
Nause, F. A., Jr. ------Sheboygan
Naylen, F. J. ----------Adell
Nebel, Harold ----------Milwaukee
Neff, E. E. ----------Madison
Neidhold, C. D. ----------Appleton
Neilson, G. W. --------Milwaukee
Nelson, W. V. ----------Milwaukee
Nesbit, W. M. ----------Madison
Neumann, W. H. ------Sheboygan
Neupert, C. N. ----------Madison
Neville, Mary E. ------Milwaukee
Nichols, C. H. ---------Milwaukee
Nichols, W. T. ---------Milwaukee
Niland, P. J. ----------Milwaukee
Nimz, F. N. ----------Milwaukee
Nixon, H. G. B. ---------Hartland
Noble, J. B. ----------Waukesha
Nolte, L. G. ----------Milwaukee
Northey, T. M. ----------Racine
Notbohm, W. R. ---------Sullivan
Nugent, A. C. ---------Milwaukee
Nuzum, T. W. ----------Janesville
Nystrum, L. E. ----------Medford

Oatway, W. H., Jr. -------Madison
Oberbreckling, P. E. ---Milwaukee
Oberfeld, H. H. ----So. Milwaukee
O'Brien, P. T. ----------Menasha
O'Donnell, S. P. ----------Kiel
O'Hara, J. J. ----------Milwaukee
O'Leary, T. J. ----------Superior
O'Leary, T. J. ----------East Troy
Olsen, L. C. J. ----------Delafield
Olsen, Maurice --------Milwaukee
Olson, H. J. ----------Milwaukee
Olson, W. A. ----------Greenwood
O'Malley, T. S. --------Milwaukee
O'Malley, W. P. -------Milwaukee
O'Neal, Orvil ----------Ripon
Orchard, H. J. ----------Superior
Osgood, C. W. --------Wauwatosa
Owen, J. D. ----------Milwaukee
Ozonoff, J. B. ---------Milwaukee

Pallasch, F. J. --------Milwaukee
Panetti, H. E. ---------Milwaukee
Parke, George ----------Viola
Partridge, C. D. ----------Cudahy
Patek, A. J. ----------Milwaukee
Patterson, L. G. --------Waupaca
Paulbeck, T. M. --------Milwaukee
Pawsat, E. H. --------Fond du Lac
Peake, E. P. ----------Oshkosh
Pegram, J. W. --------Milwaukee
Pember, A. H. ---------Janesville
Perlson, P. H. ---------Milwaukee
Pessin, S. B. ----------Madison
Peterman, M. G. -------Milwaukee
Peters, H. A. --------Oconomowoc
Peters, L. M. ----------Milwaukee
Peterson, E. F. -------Wauwatosa
Peterson, L. W. ------Sun Prairie
Peterson, L. W. --------Shawano
Peterson, R. O. ----------Racine
Peyton, L. T. ---------Milwaukee
Pfefferkorn, E. B. -------Oshkosh
Pfeifer, E. C. ----------Racine
Pfeifer, F. J. --------New London
Pfeifer, H. A. ---------Milwaukee
Pfeiffer, A. S. ----------Racine
Pfeil, R. C. ----------Milwaukee
Pfisterer, F. W. --------Milwaukee
Pierce, D. F. -------Hales Corners
Pifer, P. E. ----------Kenosha
Pink, J. J. ----------Milwaukee
Pippin, B. I. -----Richland Center
Pirsch, Margaret V. -----Kenosha
Pitz, M. N. ----------Neenah
Plahner, Samuel -------Milwaukee
Pleyte, A. A. ----------Milwaukee
Polachek, W. S. -------Milwaukee
Pomainville, F. X. ---Wis. Rapids
Pomainville, G. J. -------Nekoosa
Pomainville, H. G. ------Pittsville
Pomainville, L. C. ----Wis. Rapids
Pope, F. W. ----------Racine
Popp, Albert ----------Milwaukee
Powers, H. W. --------Milwaukee
Powers, J. W. ---------Milwaukee
Pratt, G. N. ----------Menasha
Prefontaine, K. F. --------Slinger
Prentice, J. W. ----------Ashland
Prudowsky, H. H. ------Milwaukee
Pugh, G. J. ----------Milwaukee
Puestow, K. L. ----------Madison
Purcell, H. E. ----------Madison
Purtell, R. F. ----------Milwaukee

Quick, A. J. ----------Milwaukee
Quick, Edward --------Milwaukee
Quigley, L. D. ---------Green Bay

Radl, C. J. -------Wisconsin Dells
Radloff, A. C. ----------Plymouth
Ragan, W. F. ---------Milwaukee
Raine, Forrester ------Milwaukee
Randall, A. J. ----------Kenosha
Randall, M. W. --------Blue River
Raube, H. A. ----------Beloit
Rauch, A. M. ----------Kenosha
Rauch, W. A. ---------Manitowoc
Rauchschwalbe, L. E. ---Wauzeka

Rawlins, J. A. ----------Portage
Raymond, R. G. ------Brownsville
Reay, G. D. ----------Onalaska
Rector, A. E. ----------Appleton
Redelings, T. J. --------Marinette
Rees, T. H. ----------Manitowoc
Reese, H. H. ----------Madison
Regan, J. R. ----------Milwaukee
Reich, W. F. ----------Milwaukee
Reifenrath, I. B. ------Milwaukee
Reinke, C. C. ----------Milwaukee
Remer, W. H. ---------Chaseburg
Reuter, M. J. ----------Milwaukee
Reynolds, J. H. --------Milwaukee
Reznichek, C. G. ---------Madison
Rhea, C. W. ----------Wood
Rheineck, A. F. --------Milwaukee
Rice, E. M. ----------Milwaukee
Ricciardi, I. J. ---------Milwaukee
Rich, G. J. ----------Milwaukee
Richards, C. G. ----------Kenosha
Richards, R. R. ----------Blair
Riegel, J. A. ------St. Croix Falls
Ries, M. F. ----------Brownsville
Ripley, H. M. ----------Kenosha
Risjord, N. C. --Highwood, Illinois
Ritchie, G. A. ----------Appleton
Robb, J. J. ----------Green Bay
Roberts, D. W. --------Milwaukee
Roberts, H. M. --------Wauwatosa
Robertson, M. J. ---------Bayfield
Robinson, H. P. --------Milwaukee
Rock, J. N. ----------Milwaukee
Rock, J. W. ----------Thiensville
Rodgers, R. S. ----Chippewa Falls
Rogers, A. F. ---------Milwaukee
Rogers, E. H. ---------Milwaukee
Rogers, M. F. ---------Milwaukee
Rogers, R. B. ----------Neenah
Rogers, R. J. ----------Oconto
Rolfs, T. H. ----------Milwaukee
Romberg, H. A. ----------Oshkosh
Rose, H. L. ----------Kenosha
Rosenbaum, M. K. -----Milwaukee
Rosenberger, A. I. -----Milwaukee
Ross, M. E. ----------Brodhead
Roth, W. C. ----------Racine
Ruehlman, D. D. ----------Monroe
Ruppenthal, A. J. -----Milwaukee
Ruschhaupt, L. F. -----Milwaukee
Russell, F. H. ---------Milwaukee
Russell, R. J. M. ------Milwaukee
Ryan, E. R. ----------Milwaukee
Ryan, William ---------Milwaukee

Sachse, F. W. ----------Hartford
Sadoff, H. B. ----------Milwaukee
Salinko, S. S. ---------Milwaukee
Sander, O. A. ----------Milwaukee
Sanford, J. A. ----------Milwaukee
Sargeant, H. W. ------Wauwatosa
Sargent, J. C. ---------Milwaukee
Sauthoff, August --------Mendota
Savage, G. T. ---------Milwaukee
Sayle, R. G. ----------Milwaukee
Schacht, E. W. ----------Racine
Schacht, R. J. ----------Racine
Schaefer, A. A. --------Milwaukee
Schaefer, C. O. ----------Racine
Schelble, E. J. ---------Milwaukee
Schelble, J. P. ---------Milwaukee
Schilling, H. J. ----------Denmark
Schindler, J. A. ----------Monroe
Schlaepfer, Karl ------Milwaukee
Schlapik, A. ----------Kenosha
Schloemer, A. J.--Menomonee Falls
Schlomovitz, B. H. -----Milwaukee
Schlomovitz, E. H. -----Milwaukee
Schlomovitz, H. H. --------Barron
Schlossmann, B. -------Milwaukee
Schmeling, A. F. --------Columbus
Schmidt, A. C. ---------Milwaukee
Schmidt, E. S. ---------Green Bay
Schmidt, H. G. --------Milwaukee
Schmidt, J. A. ---------Milwaukee
Schmit, Felix ---------Milwaukee
Schmit, Louis ---------Milwaukee
Schmitt, A. J. ---------Sheboygan
Schneeberger, L. J. ----Milwaukee
Schneider, C. C. -------Milwaukee
Schneider, C. R. -------Milwaukee
Schneider, Hans ---------Dousman
Schneiders, E. F. --------Madison
Schneller, E. J. ----------Racine
Schoen, C. M. ---------Milwaukee
Schoenecker, E. A. ----Lake Mills
Scholter, E. A. W. -----Milwaukee
Scholz, G. M. ----------Milwaukee
Scholz, H. F. ---------Thiensville
Schoofs, O. P. ---------Milwaukee
Schowalter, R. P. -----Milwaukee
Schroeder, E. L. --------Shawano
Schroeder, J. C. --------Milwaukee
Schubert, C. K. ----------Madison
Schulte, G. C. ----------Kenosha
Schultz, Isadore ------Mazomanie
Schulz, G. J. ---------Union Grove
Schulz, Irwin ---------Milwaukee
Schumacher, H. S. -----Milwaukee
Schumm, H. C. ---------Milwaukee
Schutte, A. G. ---------Milwaukee
Schwade, E. D. --------Milwaukee
Schwartz, A. B. ---------Milwaukee
Schwartz, Rollin --Chippewa Falls
Schweitzer, G. J. ------Milwaukee
Schweitzer, W. A. -----Milwaukee
Schwittay, Addie M. ------Madison
Scollard, W. J. --------Milwaukee
Scott, B. E. ----------Berlin
Seaman, G. E. --------Winnebago
Seeger, S. J. ----------Milwaukee
Seegers, F. W. --------Milwaukee
Seelman, J. J. ----------Milwaukee
Senn, U. ----------Milwaukee
Settle, R. O. ----------Waupun
Sevringhaus, E. L. -------Madison
Seward, L. J. ----------Berlin
Shabart, E. J. --------Wauwatosa
Shalken, Joseph -------Milwaukee
Sharpe, H. R. -------Fond du Lac
Sharpe, J. J. --------Fond du Lac
Shaw, R. W. ----------Marinette
Shearer, H. A. ----------Beloit
Sheehan, W. C. ------Stevens Point
Sherwood, M. W. ------Milwaukee
Shimek, A. J. ----------Manitowoc
Shimpa, J. F. ----------Milwaukee
Sieker, A. W. ----------Plymouth
Siekert, H. P. ---------Milwaukee
Silbar, S. J. ----------Milwaukee
Simenson, R. S. ----------Valders
Simonson, L. M. -------Sheboygan
Sinaiko, A. A. ----------Madison
Sincock, H. A. ----------Superior
Sisk, I. R. ----------Madison
Sisk, J. N. ----------Madison
Sivyer, A. W. ---------Milwaukee
Skemp, G. E. ----------La Crosse
Slutzky, Nathan --------Milwaukee
Smith, C. E. ----------Beloit
Smith, D. S. ----------La Crosse
Smith, E. A. ----------Milwaukee
Smith, H. S. ----------Cudahy
Smith, J. F. ----------Wausau
Smith, J. W. ----------Milwaukee
Smith, L. D. ----------Milwaukee
Smith, S. M. B. ----------Wausau
Smith, T. D. ----------Neenah
Smits, R. H. ----------Green Bay
Smuckler, R. H. --------Milwaukee
Snodgrass, T. J. --------Janesville
Soles, F. A. ----------Platteville
Somers, A. J. -----Chippewa Falls
Spelbring, P. G. -------Eau Claire
Spilberg, S. ----------Milwaukee
Spitz, M. M. ----------Milwaukee
Spooner, A. D. --------Milwaukee
Sprague, L. V. ----------Madison
Springer, V. G. ------Winneconne
Sproule, R. P. ---------Milwaukee
Squier, T. L. ----------Milwaukee
Stack, S. S. ----------Milwaukee
Stadel, E. V. ----------Reedsburg
Stamm, L. P. ----------Milwaukee
Stamm, M. P. ---------West Allis
Stebbins, G. G. ----------Madison
Stebbins, W. W. ---------Madison
Steckbauer, J. W. ------Manitowoc
Stehr, A. C. ----------Madison
Stein, J. F. ----------Oshkosh
Steinkopff, E. K. ------Milwaukee
Stemper, Irene ------Oconomowoc
Stern, C. S. ----------West Allis
Stewart, W. C. ----------Kenosha
Stiehm, R. H. ----------Madison
Stiennon, O. A. --------Green Bay
Stirn, F. J. ----------Milwaukee
Stockinger, R. E. ------Milwaukee
Stoddard, C. H. -------Milwaukee
Stoland, I. ----------Eau Claire
Stollenwerk, R. J. --Stevens Point
Stovall, W. D. ----------Madison
Stranberg, W. L. ------West Allis
Stratton, F. A. --------Milwaukee
Strong, R. G. ----------Manitowoc
Stubenvoll, C. E. --------Shawano
Suhr, A. L. ----------Milwaukee
Sumner, W. C. ----------Edgerton
Supernaw, J. S. ----------Madison
Sure, J. H. ----------Milwaukee
Swartz, K. A. ----------Waupun
Sweet, S. J. ----------Milwaukee

Tabachnick, Harry ----Milwaukee
Tasche, C. T. ----------Sheboygan
Tasche, J. C. ----------Sheboygan
Tasche, L. W. ---------Sheboygan
Taugher, J. S. ---------Milwaukee
Taylor, J. Gurney -----Milwaukee
Taylor, W. A. ----------Portage
Teitgen, Arthur -------Manitowoc
Temkin, M. M. --------Beaver Dam
Tenney, H. K. ----------Madison
Teschan, R. A. ---------Milwaukee
Teschan, R. F. ---------Milwaukee
Tessier, A. F. ---------Milwaukee
Thackeray, R. C. ----------Racine
Tharinger, E. L. -------Milwaukee
Thayer, R. A. ----------Beloit
Theisen, S. A. ------Fond du Lac
Thill, D. P. ----------Milwaukee
Thill, G. E. ----------Milwaukee
Thompson, A. S. --------Mt. Horeb
Thompson, E. X. ------Milwaukee
Thompson, F. A. ------Milwaukee
Thompson, I. F. ----------Racine
Thompson, R. D. ------Milwaukee
Tibbitts, U. J. ----------Waukesha
Tierney, E. F. ----------Portage
Tippet, W. P. ----------Green Bay
Tormey, A. R. ----------Madison
Tormey, T. W. ----------Madison
Torpy, T. G. ----------Minocqua
Tousignant, A. N. --------Oconto

Towne, W. H. --------Hortonville
Townsend, E. H., Jr. ---La Crosse
Trautmann, Milton ------Madison
Trowbridge, C. H. --------Viroqua
Trowbridge, W. M. ------Viroqua
Trultt, J. W. ----------Milwaukee
Trumbo, J. K. ----------Wausau
Tufts, M. ----------Milwaukee
Turgasen, F. E. -------Manitowoc
Twohig, D. J. -------Fond du Lac
Twohig, J. E. -------Fond du Lac

Unterholzner, L. J.---Blanchardville
Urdan, B. E. ----------Milwaukee

Van Hecke, D. S. --------Phillips
Van Hecke, L. J. ------Milwaukee
VanKirk, F. W. --------Janesville
Van Riper, H. E. --------Madison
VanSchaick, R. E. --------Marion
Van Valin, E. C. ----------Sussex
Van Zanten, W. W. ----Sheboygan
Vander Kamp, Harry -----Baraboo
Vedder, H. A. ----------Marshfield
Vedder, J. B. ----------Marshfield
Venning, J. R. ------Fort Atkinson
Vingom, C. O. ----------Madison
Virgin, H. W. ----------Madison
Voellings, W. J. ------Mukwonago
Vogel, C. A. ----------Elroy
Vogel, T. L. ------Milton Junction
Von Jarchow, B. L. -------Racine
Voskuil, Anthony ----Cedar Grove

Waffle, R. L. --------Fond du Lac
Wagner, A. L. ----------Brillion
Wagner, N. B. ----------Racine
Wagner, P. C. --------Milwaukee
Wagner, W. A. ----------Oshkosh
Waite, W. S. ----------Watertown
Waldeck, E. A. --------Milwaukee
Waldkirch, R. M. -------Wayside
Waldman, I. J. --------Milwaukee
Waldschmidt, W. J. --Fond du Lac
Walker, H. M. --------Dodgeville
Walker, L. J. ----------Milwaukee
Wall, C. E. ----------Manitowoc
Walter, G. W. ----------Racine
Walters, D. N. ------Fond du Lac
Walton, W. B. --------Milwaukee
Warfield, L. M. --------Milwaukee
Warschauer, Bruno ----Milwaukee
Washburne, Annette C. ---Madison
Washburn, R. G. ------Milwaukee
Wasielewski, S. F. ----Milwaukee
Waters, R. M. ----------Madison
Watkins, W. C. ----------Oconto
Watson, E. L. ----------Ripon
Weber, A. J. ----------Milwaukee
Weber, C. J. ----------Sheboygan
Wegmann, G. H. ------Milwaukee
Wegmann, N. J. -------Milwaukee
Wehle, W. J. ----------West Bend
Weingart, W. F. -------Milwaukee
Weisfeldt, S. C. -------Milwaukee
Welch, F. B. ----------Janesville
Welke, E. G. ----------Madison
Weller, E. A. --------Weyauwega
Wendt, F. A. ------Johnson Creek
Wenn, J. F. ----------Milwaukee
Wenstrand, D. E. W. --Milwaukee
Werner, D. J. ---------Milwaukee
Werner, H. C. -------Fond du Lac
Werrell, W. A. ----------Madison
Weston, F. L. ----------Madison
Wetzler, S. H. ---------Milwaukee
Whalen, G. E. ---------Milwaukee
Wheeler, R. M. ----------Madison
Wheeler, W. P. ----------Oshkosh
Wheelihan, R. Y. ------Milwaukee
White, A. S. ----------Rice Lake
White, C. L. --------Mineral Point
Wieder, L. M. ---------Milwaukee
Wiesen, R. P. ---------Milwaukee
Wiesender, A. J. ----------Berlin
Wilets, J. B. ----------Milwaukee
Wiley, F. S. --------Fond du Lac
Wilkinson, J. D. ----Oconomowoc
Wilkinson, J. F. -----Oconomowoc
Wilkinson, M. R. ----Oconomowoc
Willett, T. ----------West Allis
Williams, E. B. ----------Oshkosh
Williams, H. H. ----------Sparta
Williamson, C. S. ------Green Bay
Williamson, G. H. --------Neenah
Wilson, N. M. ---------Manitowoc
Wilson, O. M. ----------Wausau
Windesheim, Gustave ---Kenosha
Wirthwein, Carlton ---Milwaukee
Wiswell, C. Y. ------Williams Bay
Witte, D. H. ----------Milwaukee
Witte, W. C. F. --------Milwaukee
Wochos, F. J. ----------Kewaunee
Wochos, W. M. --------Kewaunee
Wojta, W. C. --------Fond du Lac
Wolf, Herman ----------Kenosha
Wolf, R. C. --------Hales Corners
Wollershelm, P. J.--Forest Junction
Wolter, S H. ----------Milwaukee
Wood, C. A. ----------Waukesha
Woodhead, F. J. -------Waukesha
Wyant, M. E. --------Sun Prairie
Wyman, J. F. ---------Milwaukee

Yates, J. L. ----------Milwaukee
Yockey, J. C. --------Fond du Lac
Yost, R. G. ----------Manitowoc
Young, A. F. ---------Wauwatosa

Zietlow, F. G. ----------Brillion
Zillmer, Helen J. ------Milwaukee
Zimmerman, C. --------Milwaukee
Zimmermann, F. H. ---Watertown
Zivnuska, J. F. -------Milwaukee
Zlatnik, A. P. --------Two Rivers
Zmyslony, W. P. ------Milwaukee
Zuercher, J. C. --------Milwaukee
Zurheide, H. O. --------Milwaukee
Zwickey, W. H. ---------Superior

Congress of Anesthetists in Madison, October 29-30

THE sixteenth annual Congress of Anesthetists will meet in Madison on October 29–30. Members of the State Medical Society of Wisconsin are invited to attend and participate in the scientific program. The schedule of discussions follows:

Registration headquarters will be at the Loraine Hotel. Each person attending will be expected to register at the Loraine Hotel on arrival, whether staying there or not. A registration desk will be open on the mezzanine floor of the Loraine Hotel from 4 p.m. Thursday until after midnight, and again from 7 to 8:30 a.m. Friday.

Scientific Program

Friday and Saturday Forenoons: Beginning at 8:30 a.m.—Clinical demonstrations and discussions at the Medical School and Wisconsin General Hospital; with tours of inspection of the operating rooms and oxygen therapy equipment.

Friday and Saturday Mid-Day: Round-Table Luncheons—Discussions will be led by members of the Medical School faculty and the anesthesia staff. Tentative topics for these question-box discussions are: (1) The Physiology of Carbon Dioxide. (2) Effects of Anesthetic Agents on the Heart. (3) Technique of Cyclopropane Administration. (4) Barbiturates and Opiates. (5) The Absorption Technique. (6) Oxygen Therapy. (7) Statistics and Record Keeping. (8) Reflex Effects of the Vegetative Nervous System. (9) Postoperative Pulmonary Complications.

Each subject discussed on Friday noon will be available to another group on Saturday noon. Added topics will be welcomed either through the mail or at the time of registration.

Friday Afternoon—The program will consist of discussions and demonstrations of current research work in the Medical School, confined, so far as possible, to its clinical application.

Friday Evening—A dinner is planned at the Loraine Hotel.

Saturday Afternoon Football Game—The annual conference game between Northwestern University and the University of Wisconsin will be played. A mail order to Dr. M. D. Leigh, Wisconsin General Hospital, for ticket registrations, should be sent at once to assure good seats.

Expenses—In order to obviate any financial burden on any individual or organization, it is requested that tickets for all events be purchased Thursday night or Friday morning at the time of registration. Round-table luncheons (75 cents each) $1.50; Friday evening dinner $2 a cover.

Entertainment—Suitable entertainment will be provided for the wives of visiting physicians and other nonmedical guests.

The Journal Bookshelf

BOOKS RECEIVED FOR REVIEW

Injuries and Diseases of the Hip. By Fred H. Albee, M. D., past president, American Orthopedic Association; chairman, Rehabilitation Commission of the State of New Jersey. Assisted by Robert L. Preston, M. D., associate in orthopedic surgery, Columbia University (New York Postgraduate Medical School). With 100 illustrations, including three in color. Price $5.50. New York: Paul B. Hoeber, Inc., 1937.

Obstetrics for Nurses. By Joseph B. DeLee, M. D., professor of obstetrics and gynecology, emeritus, University of Chicago; consultant in obstetrics, Chicago, Lying-In Hospital and Dispensary; consultant in obstetrics, Chicago Maternity Center, and Mabel C. Carmon, R. N., chief supervisor and instructor in the birthrooms, Chicago Lying-In Hospital and Dispensary. Eleventh edition, revised and reset; 659 pages with 292 illustrations. Cloth, $3 net. Philadelphia and London: W. B. Saunders Company, 1937.

Psychiatric Nursing. By William S. Sadler, M. D., chief psychiatrist and director, The Chicago Institute of Research and Diagnosis; consulting psychiatrist to Columbus Hospital, in collaboration with Lena K. Sadler, M. D., associate director, The Chicago Institute of Research and Diagnosis; medical director, The North Side Rest Home; attending physician, Columbus Hospital and the Women and Children's Hospital, and Anna B. Kellogg, R. N., member, American Nurses Association; chief of nurses, The Psychiatric Clinic of The Chicago Institute of Research and Diagnosis; instructor in psychiatric nursing, The North Side Rest Home. Price $2.75. St. Louis: The C. V. Mosby Company, 1937.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Laboratory Manual of General Physiology. By T. Cunliffe Barnes, D. Sc., assistant professor of biology, Yale University. Philadelphia: P. Blakiston's Son & Co., Inc.

This is a splendid laboratory manual, designed to accompany the textbook. Many simple, beautiful experiments are outlined. They are well-adapted to the ability of the average university student. R. C. H.

Medical Urology. By I. S. Koll, M.D., attending urologist, Michael Reese Hospital, Chicago. Price $5. St. Louis: The C. V. Mosby Company, 1937.

In the preface the author states that his principal idea was to present practical values to the general practitioner and the medical students. From the viewpoint of the general physician the book is of great value, but for the medical student the subject matter is treated rather briefly.

The chapter on the treatment of gonorrhea is well done and will be of much value in placing this much neglected disease on a higher therapeutic level.

It is unfortunate that the book reached the publishers before a discussion of mandelic acid in the treatment of urinary tract infections could be included.

His discussion of sterility and impotency is timely and useful.

The book will be a distinct addition to any general physician's library. J. B. W.

Nutritive Aspects of Canned Foods. A bibliography of scientific reports, and helpful tables of food data. Compiled by the Nutrition Laboratory, Research Department of the American Can Company.

This book, in my estimation, is not worth five minutes time. Sentences are hazy with an endless number of references, and there are so many inaccurate statements. It seems a most lengthy and glorified advertisement for canned foods. One hardly dares consider a fresh product. In conclusion, it seems bad form to publish a table on the food content of various canned foods in which in most cases only one analysis was done. A. M. D.

Laboratory Diagnosis of Syphilis. By Harry Eagle, M.D., lecturer in medicine, Johns Hopkins University Medical School, Baltimore, Maryland. St. Louis: The C. V. Mosby Company, 1937.

This book is an excellent and timely presentation on the serodiagnosis of syphilis. It contains, in addition to purely laboratory procedures, much in-

formation that concerns the clinician. The first part is devoted to complement fixation methods; the second to flocculation tests; the third to the examination of cerebrospinal fluid. Part V, consisting of six chapters, is intended for the clinician. All of the perplexing problems that constantly arise dealing with the interpretation of laboratory results are here discussed, and the author has succeeded in presenting this subject in a very interesting and decidedly clear manner. What the clinician should do with laboratory results that are reported as doubtful reactions, faint positive reactions, conflicting reports, etc., are discussed in a very instructive way.

The book should appeal to the general practitioner. Practically half of the text is intended to inform him as to the nature, the limitations, the value, and the interpretations of the various laboratory tests for syphilis.

The author has had a very extensive experience, having made some very valuable contributions to the field of serodiagnosis, and developed a flocculation test that has proved to be very satisfactory. The Eagle flocculation test is now being used by the Wisconsin Psychiatric Institute, to which many physicians of Wisconsin send blood for serodiagnosis. Questions that occur almost daily necessitating much correspondence and delay and occasionally misunderstanding are largely answered in this volume. His book is recommended as the best now available on this subject for the general practitioner to read. The author has included an accurate historical account of the developments in serodiagnosis from the time of Wassermann and his co-workers up to the present. The comment by Dr. J. E. Moore of Johns Hopkins Hospital in the Foreword of the book best expresses what the author has accomplished in this publication—"He (Dr. Eagle) has made adequate use of the enormous bibliography of his subject, and has succeeded in presenting even its most complex and technical aspects in language intelligible to any well-trained physician." W. F. L.

Clinical Reviews of the Pittsburgh Diagnostic Clinic. Edited by H. M. Margolis, M.D. Price $5.50. New York: Paul B. Hoeber, Inc.

The purpose of these Reviews is to summarize the advances, which have been made, and which have a practical application in the field of general medicine for the general practitioner, so that he may have available for his use information without the necessity of referring to a voluminous literature. These essays, which number forty-five, may be compared to the clinical lectures frequently given in various parts of the country from time to time as postgraduate courses of instruction. Although most of the articles have been written by Margolis, who has edited the Reviews, seven other collaborators have made minor contributions.

Because of the sketchy and superficial method of presentation, whatever value the essays have today will be lost tomorrow when newer publications are available. For some information such as the treatment of pernicious anemia one could profit equally as well, if not better, by referring to many standard textbooks on medicine. In an article on Endocrinology, on the other hand, where opportunity is afforded of presenting recent practical advances, the author has indulged in a long dissertation of confusing generalities while the paucity of the information included in no way reflects the extent of new information available. K. L. P.

Synopsis of Gynecology. By H. S. Crossen, M.D., professor emeritus of clinical gynecology, Washington University School of Medicine; gynecologist to the Barnes Hospital, St. Louis Maternity Hospital and St. Luke's Hospital; and R. J. Crossen, M.D., assistant professor of clinical gynecology and obstetrics, Washington University School of Medicine; assistant gynecologist and obstetrician to the Barnes Hospital and the St. Louis Maternity Hospital. Second edition. Price $3. St. Louis: The C. V. Mosby Company, 1937.

This is a synopsis based on the textbook "Diseases of Women" by the same author. This small volume is intended as an aid to the medical student who does not expect to practice gynecology or its closely applied branches of medicine. The text has been revised and brought up-to-date. It serves well the purpose for which it is intended. M.J.T.

Treatment by Diet. By Clifford J. Barborka, M.D., department of medicine, Northwestern University Medical School, Chicago. Third edition, revised. Philadelphia: J. B. Lippincott Company, 1937.

This volume is the third edition of an exceptionally valuable book for the general practitioner. The second edition appeared a little less than a year ago. The new material here is in more detail about vitamins and the use of protamin insulin. The book can be heartily commended to the clinician who wants both an understanding of diet therapy, the details of prescribing it, and preparing special foods. E. L. S.

Supplements to the Pharmacopoeia of the United States. Eleventh Decennial Revision. By authority of the United States Pharmacopoeial Convention. Agent: Mack Printing Company, Easton, Pa.

Excerpts from the Preface give an adequately clear idea of the purpose and scope of this and subsequent supplements to the U. S. P. XI.

"Supplements to the Pharmacopoeia have been established as an essential development in the program of revision. Because of the intensive studies to which official standards are constantly subjected, it has been found expedient to formulate a plan for revising standards, including tests and assays, and even adding new therapeutic agents whenever the advances in therapeutic knowledge or the presentation of new scientific facts indicate such changes to be warranted.

"In order to indicate clearly the new official requirements, the 'First Supplement' includes in full

CANNED FOODS IN THE CONTROL OF LATENT AVITAMINOSES

• In June, 1935, this space was devoted to a discussion of some of the general aspects of latent avitaminoses. It appears pertinent to report some of the more recent ideas in regard to this important field.

Considering the subject of avitaminoses in its entirety, the modern medical attitude is aptly expressed by the following statement: "... the mild or latent forms of the vitamin deficiencies are more important in practice at present than the fully developed cases. The latter are uncommon, are easily recognized and are usually promptly and adequately treated. On the other hand there is reason to believe that minimal or mild forms of these diseases are much more frequent, often escape recognition and, because of their insidious effect on large numbers of people, constitute a more serious problem than the occasional advanced cases." (1)

Consideration of this statement brings home the importance of optimum vitamin intake. Students of nutrition agree that in order to achieve this objective, a liberal and varied diet must be available. The constituents of the diet should be wholesome foods, the preparation of which has not materially reduced their intrinsic nutritive values. Commercially canned foods fall well within this classification.

Modern canning procedures are designed to protect the vitamin potencies of the food. Recent reports in the scientific literature indicate the success attained in retaining vitamin values in commercially canned foods. (2)

In general, the control of latent avitaminoses and the advancement of positive health appear to be largely matters of practical application of facts made available by the modern science of nutrition. We wish to direct attention to the part which the wide variety of canned foods available on the American market may play in establishing dietary regimes calculated to control the avitaminoses.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) 1937. J. Am. Med. Assn. 108, 15.
(2) 1936. J. Nutr. 12, 405.
(2) 1936. J. Am. Diet. Assn. 12, 231.
1936. J. Nutri. 11, 383.
1936. Ind. Eng. Chem. 28, 1009.
(2) 1935. J. Home Econ. 27, 658.
1935. U. S. Pub. Health Rpts. 50, 1333.
1935. Am. J. Pub. Health 25, 1340.

This is the twenty-ninth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

all monographs altered in any important measure since the appearance of the original text. As a convenience to users of the Pharmacopoeia, alterations in the original text will be indicated in the Supplements by underlining those portions of the monographs which have been changed. As future Supplements are issued, each will carry those texts which have been revised since the appearance of the previous Supplement, and the latest Supplement will contain a cumulative index indicating all monographs of the original U. S. P. XI which have been revised or corrected, and the particular Supplement in which the latest text is published. The latest official standard may therefore be determined by consulting the index of the last Supplement and if not found there, it will be known that the monograph published in the original U. S. P. XI remains unchanged." A. L. T.

The 1936 Year Book of Obstetrics and Gynecology. Edited by J. B. DeLee, M.D., professor of obstetrics, University of Chicago Medical School; chief of obstetrics, Chicago Lying-In Hospital and Dispensary; and J. P. Greenhill, M.D., professor of gynecology, Loyola University Medical School; professor of gynecology, Cook County Graduate School of Medicine. Price $2.50. Chicago: The Year Book Publishers.

This is, as it always has been in the past, an excellent review of the current literature on obstetrics and gynecology. The personal comments of the authors are helpful. M.J.T.

The Patient and the Weather. By William F. Petersen, M.D., assisted by Margaret E. Milliken, S. M., Volume IV, Part 1. Organic Disease. Price $10. Ann Arbor: Edwards Brothers, Inc., 1937.

To those who may not be familiar with the work of Petersen, attention should be drawn to the fact that no one else has ever made as extensive and intensive a study of the relationship of the weather to disease. He has replaced by the presentation of detailed objectivity what might be referred to as the shrewd surmises of Hippocrates.

In this last of a series of four volumes the author is primarily interested in demonstrating how the very origin of disease may be influenced by the environmental stimuli of varying weather conditions. Two factors have necessitated and justify the publication of unusual lengthy texts: (1) the enumeration of ways in which a great variety of pathological states are influenced by meteorological alteration alone requires considerable space, and (2) the nature of the problems is such as to require the publication of meticulous detail for review and criticism. Although technically detailed and lengthy, Dr. Petersen writes simply, while numerous charts clearly prove his contentions.

Every physician, regardless of specialty, should be acquainted with this monumental work in a virgin field of research, for it throws a new light, which will grow brighter, on the cause, course, and termination of disease. K. L. P.

Clinical Allergy. By Louis Tuft, M. D., chief of clinic of allergy and applied immunology, Temple University Hospital; associate in immunology, Temple University School of Medicine. Introduction by John A. Kolmer, M. D., professor of medicine, Temple University. Cloth $8. Philadelphia: W. B. Saunders Company.

This is an excellent book, alike for allergic specialist, internist, medical student, and general practitioner. It presents complete and detailed methods of diagnosis and treatment for the recognized types of allergy in a most interesting, yet truly scientific manner. Historical notes, as well as recent theories, clinical and laboratory knowledge, with methods of testing and treatment are given in logical sequence. In addition to the discussions of the better known allergic conditions—asthma, seasonal pollinosis, and vasomotor rhinitis—the chapters on physical allergy, gastro-intestinal allergy, migraine, and the allergic dermatoses are of the utmost value in presenting the newest material regarding these conditions more recently considered as allergic manifestations.

One chapter is devoted to allergy in children and should be an especially interesting one to pediatricians. The appendix which presents laboratory methods, practical technique, elimination diets, recipes, and a most complete bibliography, is particularly valuable to the medical student and to the large number of physicians in general medical practice who, of necessity, see and treat these allergic conditions. The author and publisher are to be congratulated on the many excellent illustrations and the well ordered arrangement of the entire book. In the opinion of the reviewer, this work is not excelled as a textbook, and should prove a valuable aid to the medical profession. W. A. M.

TUBERCULOSIS

(Continued from page 832)

methods of treatment have been described as well as the needs and indications for these types of treatment. Emphasis is placed, as it should be, on the proper correlation of the clinical and laboratory findings in order to achieve the best possible results.

Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

WHEN DEALING WITH CANCER

Consider the Utility, Accessibility and

LOW COST OF RADIUM THERAPY

LEASING PLAN: Equivalent to radium ownership without CAPITAL investment. You keep possession continuously. We pay insurance and upkeep. Fifty milligrams for $22.50 per month; 100 milligrams $40. Larger amounts in proportion. The initial lease is for a period of one year. New radium. Modern platinum containers.

RENTAL PLAN: Any quantity available by special delivery express. Platinum tubes and needles, and plaques, in all dosage range. The basic rate is $10 for 50 milligrams for 36 hours' actual time of application.

PURCHASE PLAN: Radium in all forms available for purchase in any quantity at the lowest price in the history of the radium industry.

RADON: Radon in ALL-GOLD implants at $2.50 per millicurie.

THE COMPLETE SERVICE FOR RADIUM USERS

Telephone RANdolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building **25 E. Washington St.**

CHICAGO, ILLINOIS

Drink

Coca-Cola

TRADE MARK REGISTERED

Delicious and Refreshing

Pure refreshment

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE—One used diathermy equipped for autocondensation and cauterization valued at $350, will sell for $50. One Fischer Morris wave generator valued at $450, will sell for $100. One used Static Holtz machine and chair with all accessories; purchase price $2,500, will sacrifice for $300. Communicate with G. J. Maloof, M.D., 19 North Pinckney Street, Madison, Wisconsin.

FOR SALE—Home and office with separate entrance. Partly furnished if desired. Office furniture steel enameled. Northeastern Wisconsin. Twin city population about 30,000. Splendid schools and churches. Hospital facilities available to an able and well-trained man. Terms to suit given on good security. Fifty years in practice. Must retire on account of failing heart. Address T. J. Redelings, M. D., Marinette, Wisconsin.

FOR SALE—An established medical and surgical practice in southern Wisconsin town of 900. Excellent roads, open hospitals within sixteen miles. Transferable appointments, no property to buy. Can do $8,000 to $10,000 practice first year. Address No. 89 in care of Journal.

FOR SALE—Office equipment of the late Dr. E. J. Helgesen. Can be bought separately or in one lot. Prices reasonable. Mr. William J. Helgesen, 35 North First Street, Evansville, Wisconsin.

EQUIPMENT FOR SALE—High-tension, 16-plate static machine; Fischer diathermy; portable General Electric x-ray with tube; Burdick electric cabinet, direct current; 10-inch x-ray with remote control. Write Dr. Philip Eisenberg, 606 West Wisconsin Avenue, Milwaukee.

WANTED—Scandinavian assistant by a general practitioner, owning small hospital, and doing his own surgery in a small western Wisconsin community near Twin Cities. Prefer physician who has tried practicing alone and not found it to his liking, although a recent graduate might be acceptable. Address replies to No. 91 in care of Journal.

ASSISTANT WANTED in general practice with opportunity to assist in surgery. Prefer unmarried man. Guaranteed income. Location in southern Wisconsin. Address replies to No. 96 in care of Journal.

WANTED—General practitioner to associate with and share an attractive downtown office suite with an established eye, ear, nose, and throat specialist in Milwaukee. Would prefer one who desired to work into this specialty in the future. Address replies to No. 72 in care of Journal.

WANTED—Position as medical librarian or medical secretary. Graduate of library school. Two years medical library experience. Three years medical secretarial experience. Willing to go outside of Wisconsin. References. Half or full time. Salary moderate. Address replies to No. 97 in care of Journal.

WANTED—One or two additional specialists to share an excellently equipped and furnished suite in a Milwaukee downtown office building. Secretarial, x-ray, and laboratory facilities provided. Address replies to No. 59 in care of the Journal.

WANTED—Live-wire, young, medical refractionist to build his own practice. Refraction work alone will guarantee $250 per month. Address replies to No. 95 in care of Journal.

WANTED, LOCATION OR POSITION—Association in general practice by a physician licensed in Wisconsin. Prefer location in eastern part of Wisconsin. Have had one year's experience in industrial and private practice. Prefer city of 5,000 population. Desire location with established physician on a salary basis or participation in partnership profits with an opportunity to purchase or become full partner at a later date. Personal interview can be arranged. Address replies to No. 98 in care of Journal.

WANTED—Assistant to general practitioner in northern Wisconsin. Excellent hospital facilities. Guaranteed income. Catholic preferred. Address replies to No. 99 in care of Journal.

LOCATION AVAILABLE—Village of 500 in south-central Wisconsin. Good educational facilities. Fertile farming territory. Address replies to No. 90 in care of Journal.

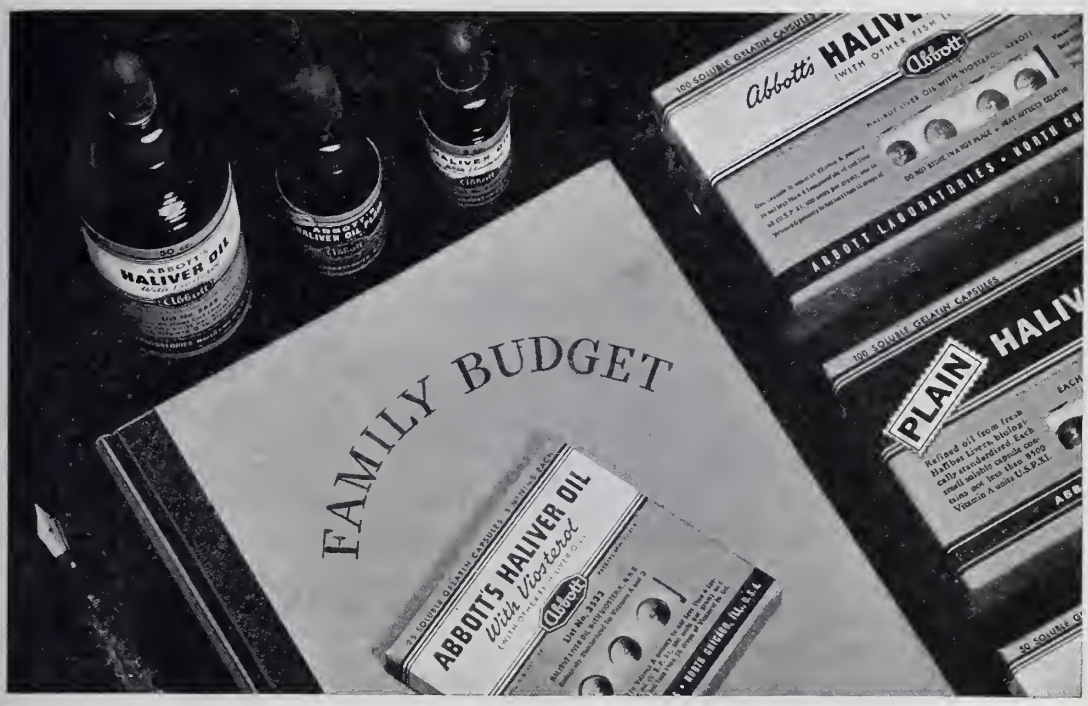
PROFESSIONAL PROTECTION

SINCE 1899
SPECIALIZED
SERVICE

A DOCTOR SAYS:—

"It gives me pleasure to state that your organization has met every obligation, actual or implied, in looking after my interests."

THE
MEDICAL PROTECTIVE COMPANY
OF FORT WAYNE, INDIANA
WHEATON, ILLINOIS



"Price differences"

NO LONGER NEED KEEP PATIENTS FROM OBTAINING DEPENDABLE VITAMIN PRODUCTS BACKED BY WORTHWHILE GUARANTEES . . .

Many persons, especially budget-minded mothers with several children requiring vitamin A and D supplements routinely, will be glad to hear that prices of Abbott vitamin products were reduced 18% to 34% beginning on August 2nd.

Differences in quality of two vitamin products can't be told by simple at-the-counter tests of weight, taste, smell or appearance. All too often thrifty purchasers reasoned, "It looks the same . . . it must be just as good . . . *and it's much cheaper!*" Consequently lower price many times led to selection of products made without the care and controls so necessary for certainty of full vitamin content and therapeutic effectiveness.

Now this treacherous barrier of "price difference" has been removed. But, unfortunately, to some patients similarity in price will make it even *more* difficult to distinguish a quality product from those that may be of uncertain vitamin content. Realizing this, the careful physician will continue to *write* all prescriptions for Haliver Oil with Viosterol and to specify Abbott. It is a simple but effective means of making certain that patients obtain a dependable product with its vitamin content guaranteed by rigid bio-assays and a responsible maker's control throughout production.

Abbott's new reduced prices apply to all sizes in which Abbott's Haliver Oil with Viosterol and Haliver Oil Plain are supplied—these include boxes of 25, 50, 100 and 250 3-minim capsules and the various sized vials of each. ABBOTT LABORATORIES, North Chicago, Illinois.

Specify

Abbott's Haliver Oil

WITH VIOSTEROL

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

Fireproof

SCHROEDER HOTELS

Sleep in Safety

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

USE THE MEDICAL LIBRARY SERVICE

412 North Charter Street

Madison

Service for Members at the Cost of Postage.

Diabetics LIVE LONGER TODAY

THE LIFE SPAN of the diabetic has been lengthened considerably following the discovery of Insulin and the growing knowledge of its use. There is, however, a definite responsibility on the part of the physician to educate the many new diabetics in the importance of proper diet and proper use of Insulin preparations.

The apparent increase in diabetes in recent years has been attributed to the modern manner of living, increased sugar consumption, overeating and lack of muscular exercise. With proper management the great majority of patients can be kept well-nourished, sugar-free, and at work.

Insulin Squibb is an aqueous solution of the active anti-diabetic principle obtained from pancreas. It is accurately assayed, uniformly potent, carefully purified, highly stable and remarkably free of pigmentary impurities and proteinous reaction-producing substances.

Insulin Squibb of the usual strengths is supplied in 5-cc. and 10-cc. vials.

Protamine Zinc Insulin, *Squibb* complies with the rigid specifications of the Insulin Committee, University of Toronto, under whose control it is manufactured and supplied. It is available in 10-cc. vials. When this preparation is brought into uniform suspension, each cc. contains 40 units of Insulin together with protamine and approximately 0.08 mg. of zinc.

E·R·SQUIBB & SONS, NEW YORK

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

When writing advertisers please mention the Journal.

BIDWELL BETTER LIMBS

Everyone Receives the Personal Attention of G. L. Bidwell the well-known Orthopedic Appliance Expert.

EXPERIENCED LADY ATTENDANT

Artificial Limbs, Braces, Trusses, Elastic Stockings, Crutches, Invalid Chairs, Abdominal Belts.

934 N. WATER ST.
PHONE BROADWAY 4369
MILWAUKEE, WISCONSIN

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S
770 North Water St. Phone Daly 1461
MILWAUKEE, WIS.

JAMES ROBBINS, M.D.
Medical Director

E. J. KELLEHER, M.D.

CHRISTY BROWN
Business Manager

PETER BASSOE, M.D.
Consulting Physician

Established 1905

Sanger Brown, M.D.

Kenilworth Sanitarium
Northern Suburb of Chicago

Built and Equipped for the Treatment of Nervous and Mental Diseases

Over Ten Acres Well Parked and Landscaped Grounds

Supervised Recreational and Occupational Activities

Gardening—Hydrotherapy

Address P. O. Box 600
Kenilworth, Ill.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

Send for application for membership in these purely professional Associations

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Since 1912

Examine
HAMILTON
before you buy
New Furniture

No. 9477 Table (above) $126.00

The No. 9477 Hamilton Nu-Classic Examining Table is modern in every sense of the word—modern in style and modern in its efficient arrangement.

SEE THEM AT OUR STORE

HAMILTON TABLES NOW ON DISPLAY

No. 9460
$165.00
The finest examining table made, conservative, spacious and efficient.

No. 9448
$97.50
A lower priced Hometone Table.

No. 9471
$145.00
The finest table in our modern Nu-Classic Line.

No. 9466-S
$94.00
Our lower priced Nu-Classic Table.

ROEMER DRUG CO.
606 N. Broadway, Milwaukee, Wis.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements

The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course

The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission

A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction

The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities

Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

JAMES C. SARGENT, Milwaukee, President
A. E. RECTOR, Appleton, President-Elect
HENRY J. GRAMLING, Milwaukee, Speaker
J. NEWTON SISK, Madison, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
H. P. Bowen_____Watertown

Second District:
Frank W. Pope_____Racine

TERM EXPIRES 1940

Third District:
Joseph Dean _____Madison

Fourth District:
B. I. Pippin___Richland Center

TERM EXPIRES 1940

Fifth District:
A. H. Heidner_____West Bend

Sixth District:
S. E. Gavin_____Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi_____Galesville

Eighth District:
G. R. Duer_____Marinette

Ninth District:
Joseph F. Smith _____Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler _____Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson_____Iron River

Twelfth District:
Joseph Lettenberger_Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert_____Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

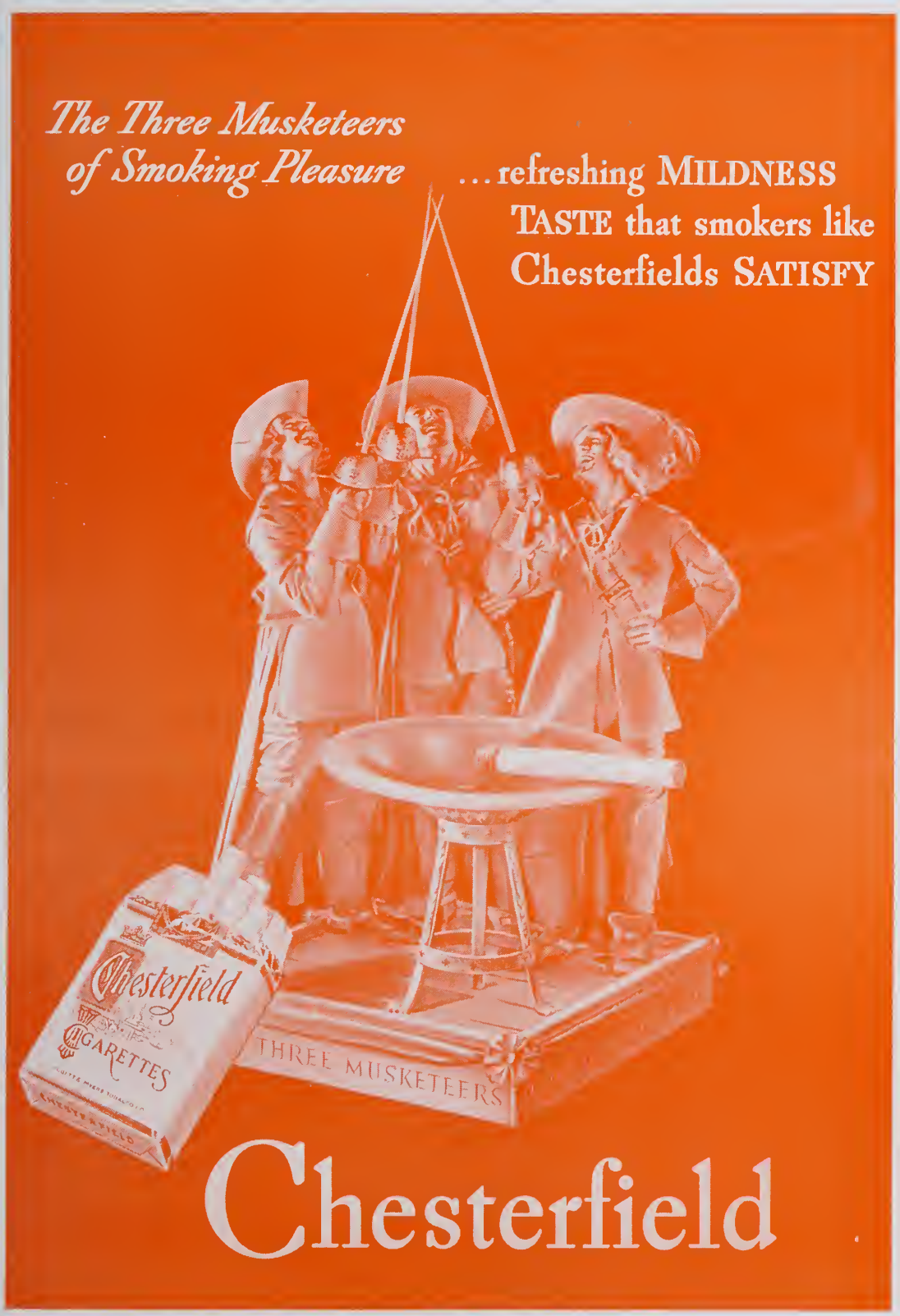
Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 525 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Killins, Green Bay.
Calumet	A. J. Wagner, Brillion	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	J. W. MacGregor, Portage	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	H. E. Purcell, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire-Dunn-Pepin	E. L. Mason, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Giasler, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	C. G. Richards, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	J. E. McLoone, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, New Glarus	E. D. McConnell, Darlington.
Langlade	Paul Dailey, Elcho	W. P. Curran, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	W. E. Donohue, Manitowoc	N. C. Erdmann, Manitowoc.
Marathon	H. H. Christensen, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	G. C. Devine, Ontario	H. H. Williams, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Oneida-Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Anderson, Plum City	A. E. McMahon, Glenwood City.
Polk	W. C. Andrews, Frederic	Earl C. Swenson, Frederic.
Portage	H. M. Coon, Stevens Point	E. E. Kidder, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempealeau-Jackson-Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	W. W. Coon, Walworth	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	J. B. Vedder, Marshfield	W. G. Sexton, Marshfield.



Copyright 1937, Liggett & Myers Tobacco Co.

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 3627

Built and Equipped for the Scientific Treatment of

NERVOUS DISEASES

Hydrotherapy, Occupational Therapy and Reeducational Methods Applied.

Building Fireproof
Isolated, Fireproof Psychopathic Department for Acute Mental Cases
Separate Cottage for Convalescent and Rest Cases

Resident Physicians
ARTHUR W. ROGERS, M.D.
Physician-in-Charge
JAMES C. HASSALL, M.D.
Medical Superintendent
OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
ARTHUR W. ROGERS, M.D.
JAMES C. HASSALL, M.D.
T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin
PETER BASSOE, M.D.
Chicago, Illinois
W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office:
Tuesday Mornings by Appointment
1330 Wells Building
Telephone Broadway 5640

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

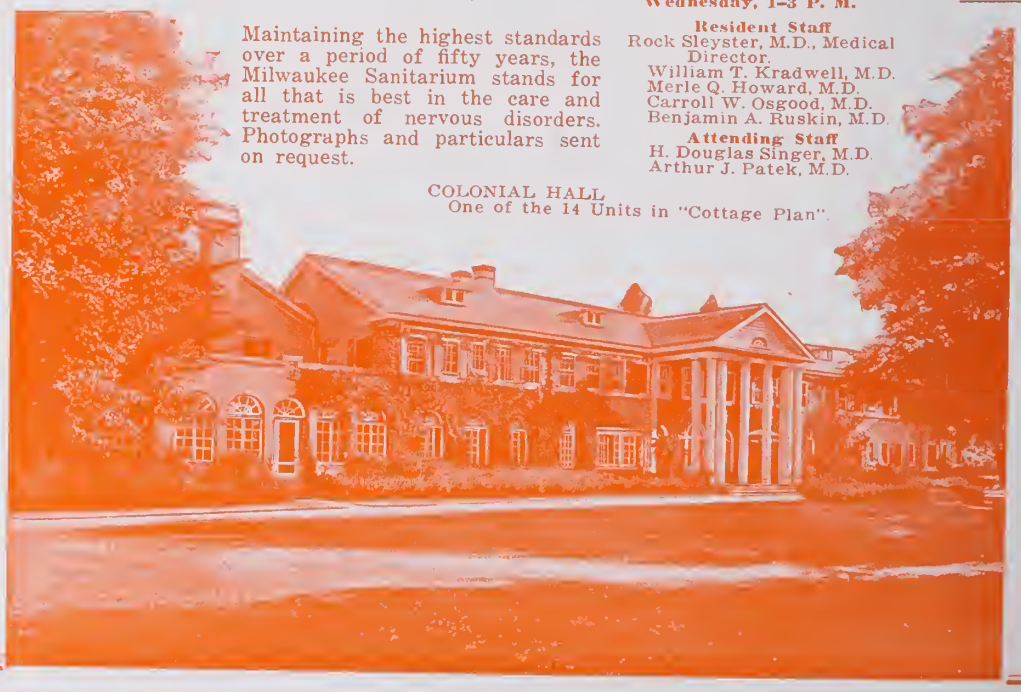
Chicago Office: 1823 Marshall Field Annex
Wednesday, 1-3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
Rock Sleyster, M.D., Medical Director.
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".



DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

STATE MEDICAL SOCIETY OF WISCONSIN
MEDICINA NUSQUAM NON EST

The Wisconsin Medical Journal

IN THIS ISSUE

PREVENTION OF DISABILITY
PERIODIC OBSERVATION
By M. G. Peterman, M. D.
POLIOMYELITIS
By H. Kent Tenney, M. D.
DISABILITY IN POLIOMYELITIS
By H. L. Greene, M. D.
RHEUMATIC HEART DISEASE
By Harold E. Marsh, M. D.
OSTEOMYELITIS IN CHILDREN
FRACTURES OF ELBOW

LIBRARY

TABLE OF CONTENTS PAGE 884

X, Number 11
ion Avenue
MADISON, WISCONSIN, NOVEMBER, 1937
Per Year $3.50
Single Copy 50 Cents
Copyright, 1937, by The State Medical Society of Wisconsin

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

- A PRIVATE SANATORIUM.
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES.
- CAREFULLY SUPERVISED REST.
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Further Information Write
T. L. HARRINGTON, M. D., Medical Director,
Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

YOU'RE SELECTED

When you are called out on a case, you ave been selected from the long list of Doc- ›rs in your community. Your record, your ersonality, your knowledge, and the confi- ence you can invoke in patients have all een considered and passed upon by the jury : public opinion. Only when the verdict of ıat jury is consistently in your favor can ›u be a success in your field. ● In exactly ıe same way, an Insurance Company de- ;nds upon public opinion for its success. :s stability, its service, its integrity and its efficiency are all considered by the prospect- ive policyholder. For this reason, Employ- ers Mutual is very proud of its record of sweeping success . . . and of the thousands of policyholders who renew year after year without solicitation. ● A record of this kind should interest you. May we not send a rep- resentative to discuss your Insurance prob- lems with you, and to give you proof of the fine record of Employers Mutual? There is no obligation on your part in requesting his call.

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.

HOME OFFICE

PROTECTION SERVICE SAVING
EMPLOYERS MUTUALS
INSURANCE
Established 1911

EMPLOYERS MUTUAL FIRE INSURANCE COMPANY

WAUSAU, WIS.

Branch Offices in Appleton, Eau Claire, La Crosse, Milwaukee, Madison, Racine, Superior and Wausau

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 11

MADISON, WISCONSIN, NOVEMBER, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES — Page

Prevention Through Periodic Observation by M. G. Peterman, M.D., Milwaukee — 895

The Early Diagnosis and Medical Treatment of Poliomyelitis by H. Kent Tenney, M.D., Madison — 900

The Prevention of Disability in Poliomyelitis by H. L. Greene, M.D., Madison — 903

Rheumatic Heart Disease in Childhood by Harold E. Marsh, M.D., Madison — 906

Acute Osteomyelitis in Children by Walter P. Blount, M.D., Milwaukee — 910

Fractures of the Elbow in Children by Irwin Schulz, M.D., Milwaukee — 913

EDITORIALS

Sulfanilamide in the Treatment of Gonorrhea and Other Infections of the Urinary Tract — 916

MISCELLANY — Page

The President's Page — 918

The Woman's Auxiliary — 921

Society Proceedings — 923

News Items and Personals — 926

Marriages, Births, Deaths — 928

Society Records — 929

Correspondence — 929

Early History of Dane County Medical Society by William Snow Miller, M.D., Madison — 929

Proceedings of the Council — 940

Medical Directories — 942

Books Received for Review — 948

Book Reviews — 950

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]

"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physio-mechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M. D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D.
L. Tennyson Peyton, M.D.

When writing advertisers please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **Joel C. Hultkrans, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

NORMANDALE

A modern sanitarium for scientific treatment of functional and organic disturbances associated with nervous diseases.

Specialized treatment of dementia praecox by means of insulin shock therapy.

Neuropsychiatric attending staff.

DR. CHARLES F. ROSENBERG, Supt.

Situated two miles west of Madison, Route 2.

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)

Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

MEDICINE—Informal Course; Intensive Personal Courses; Special Courses.

SURGERY — General Courses One, Two, Three and Six Months; Two Weeks Intensive Course in Surgical Technique with practice on living tissue; Clinical Course; Special Courses.

GYNECOLOGY — Diagnostic Courses; Clinical Courses; Special Courses.

FRACTURES & TRAUMATIC SURGERY—Informal Practical Course; Ten Day Intensive Course starting February 14, 1938.

OTOLARYNGOLOGY — Two Weeks Intensive Course starting April 4, 1938.

OPHTHALMOLOGY—Two Weeks Intensive Course starting April 18, 1938; Personal Course in Refraction.

UROLOGY — General Course Two Months; Intensive Course Two Weeks; Special Courses.

CYSTOSCOPY—Ten Day Practical Course.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE AND SURGERY.

Teaching Faculty—Attending Staff of Cook County Hospital

Address: Registrar, 427 South Honore Street, Chicago, Illinois.

Copyright 1937, Liggett & Myers Tobacco Co.

PROJECTING YOUR TECHNIQUE

The new Shuron TECHNISCOPE

It adapts your own tried and proven subjective testing technique to modern projection methods.

With each TECHNISCOPE comes one standard slide (your choice) and one slide especially made according to your specifications, such as numerals, characters or charts that you desire.

A decided new feature is the Black letters on Yellow background, eliminating glare on the screen. However, White background can be had if preferred.

The TECHNISCOPE can be used at any distance between ten and twenty feet from the patient. It can be used on a table, floor stand, Shuron chair or floor unit except the C 4310 Senior floor units. The double faced screen can be hung on the wall or mounted on a floor stand.

Truly a technical achievement that merits the best of your professional technique.

Further detail can be had from us.

MILWAUKEE OPTICAL COMPANY

Fourth Floor Bankers Building 208 East Wisconsin Avenue

MILWAUKEE

Behind

MERCUROCHROME

(dibrom-oxymercuri-fluorescein-sodium)

HV&D *is a background of*

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.

BALTIMORE, MARYLAND

PROFESSIONAL PROTECTION

SINCE 1899
SPECIALIZED
SERVICE

A DOCTOR SAYS:

"These are trials that shorten the lives of doctors. I am most thankful that we have THE MEDICAL PROTECTIVE COMPANY upon whom we may rely in our times of distress."

THE

MEDICAL PROTECTIVE COMPANY

OF FORT WAYNE, INDIANA

WHEATON, ILLINOIS

HIGH-CALORIC DIET

Indispensable to Convalescents

INFECTIOUS FEVERS deplete vitality. It is an exhaustion comparable to fasting. Convalescents show a low metabolism for several weeks following the disappearance of the fever. The low metabolism is the consequence of generalized cellular damages.

When the infection clears, activity is curbed and rest periods instituted. The patient is ready to gain. The problem is to bring about sufficient intake of food. The initial diet consists of small portions of each food prescribed and the amounts are gradually increased.

The high caloric diet is indispensable. It is made possible by reinforcing foods and fluids with Karo. Every article of the diet can be enriched with calories. A tablespoon of Karo provides 60 calories.

Karo is relished added to milk, fruit and fruit juices, vegetables and vegetable waters, cereals, breads and desserts. Karo consists of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor), not readily fermentable, rapidly absorbed and effectively utilized.

For further information, write CORN PRODUCTS SALES COMPANY, 17 Battery Place, New York, N. Y.

★ Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.

Proved Through the Years

FOR the past eight years, Viosterol products licensed by the Wisconsin Alumni Research Foundation have faithfully served the physicians of America.

The period of pioneering is complete! Underlying the products shown above . . . all licensed by the Foundation . . . is a wide background of clinical research.

In September 1924 the Journal of Biological Chemistry carried Dr. Steenbock's first report on the production of Vitamin D by means of ultraviolet irradiation. In April 1925 in the Journal of the American Medical Association he discussed the use of this process in the preparation of Vitamin D medicinals.

Then came years of intensive research by the pharmaceutical manufacturers, supplemented by numerous clinical studies, out of which developed the technique for making Viosterol of standard potency, uniformity and stability. Not until 1928 was Foundation-licensed Viosterol made generally available for use by the medical profession—evidence of the care exercised to assure a product upon which the physician may rely implicitly.

Today and into the future, clinical research continues in a manner worthy of the trust which patients place in your profession.

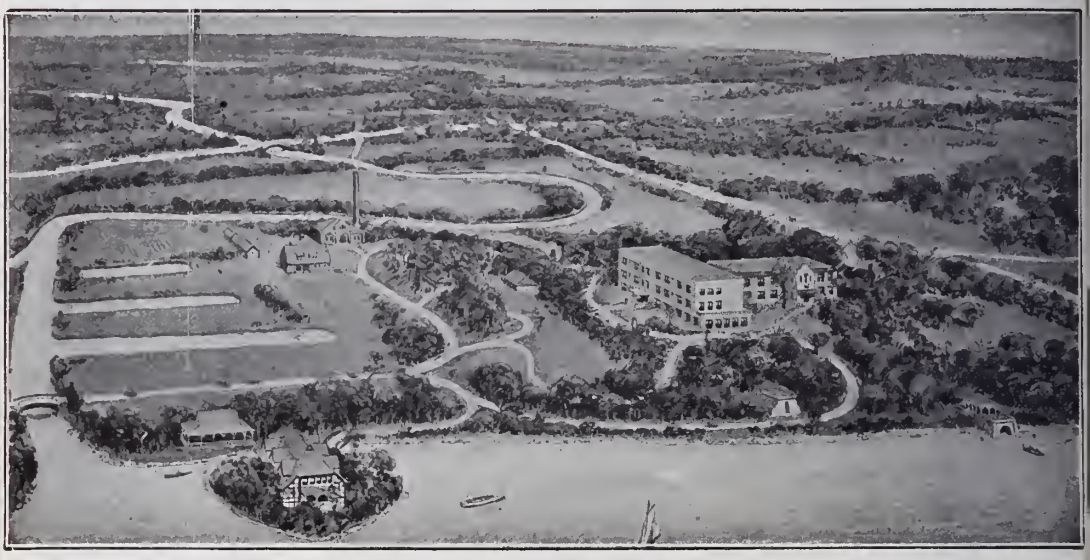
Because of these years of scientific experimentation; the extensive background of clinical studies; the practical experience; the sponsorship of this Foundation; and the integrity of the Foundation's Viosterol licensees, physicians are assured of dependable sources of Viosterol. Specify ABBOTT . . . MEAD JOHNSON . . . PARKE DAVIS . . . SQUIBB . . . or WINTHROP . . . when you prescribe VIOSTEROL and VIOSTEROL fortified products.

WISCONSIN ALUMNI RESEARCH FOUNDATION*

MADISON WISCONSIN

★ A corporation not for private profit . . . founded in 1925 . . . to accept and administer, voluntarily assigned patents and patentable scientific discoveries developed at the University of Wisconsin. By continuous biological assays, the public and professional confidence in accurately standardized Vitamin D is maintained. All net avails above operating costs are dedicated to scientific research.

THE SUMMIT HOSPITAL



Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Insulin Shock

Carbon Dioxide and

Fever Therapy

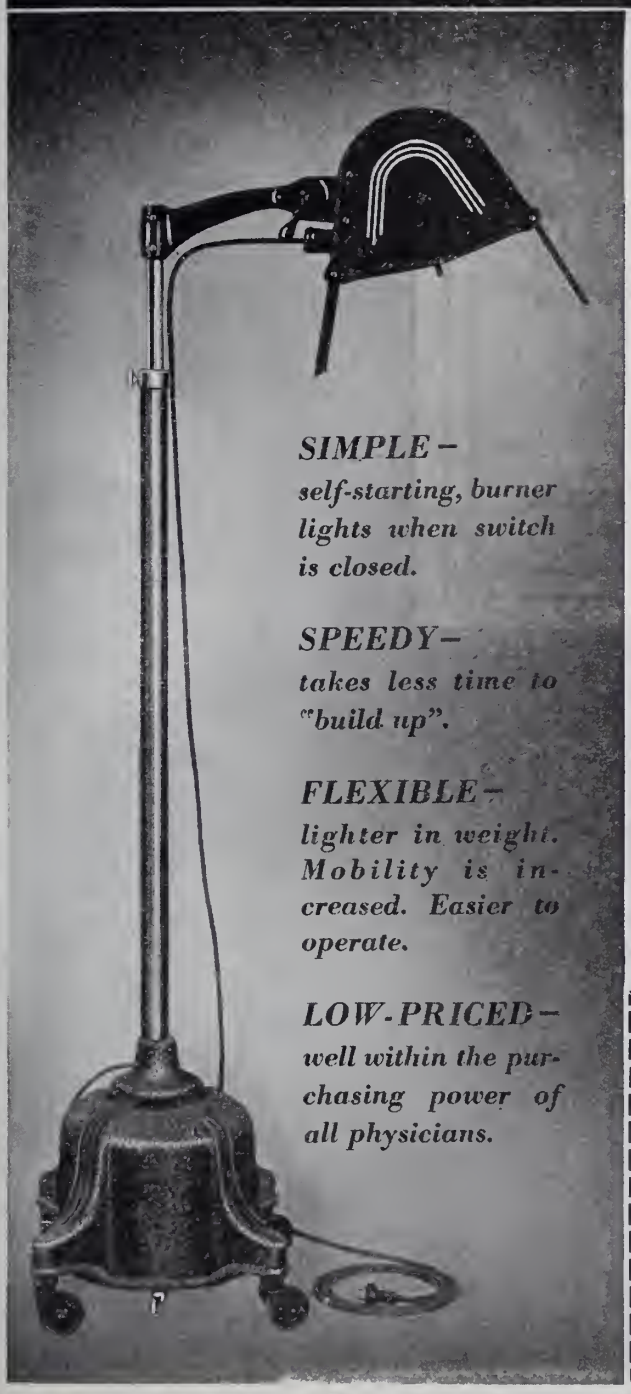
for selected cases

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.

BETTER CLINICALLY— and a BETTER INVESTMENT



NO need to discuss with you ultraviolet's therapeutic advantages; you KNOW what this beneficial radiation accomplishes in treatment of many conditions which you meet daily — rickets, erysipelas, varicose ulcers, secondary anemia.

You KNOW too that ownership of a dependable, efficient, ultraviolet lamp would be a WORTHWHILE INVESTMENT if such a lamp was purchased at a fair price and on reasonable terms. THERE IS SUCH AN APPARATUS —an entirely new product. It is the G-E Model "F" Quartz-Mercury Lamp, lower in price but BETTER in every way; better from the viewpoint of both physician and patient. Certainly it merits YOUR consideration.

Won't you mail the handy coupon—today? You will learn from interesting booklets which we'll send, what a splendid lamp this is and how much it would mean to YOU to own it.

NO OBLIGATION

GENERAL ELECTRIC X-RAY CORPORATION

Dept. A-511, 2012 Jackson Blvd., Chicago, Ill.

Please send me the booklets dealing with ultraviolet and the G-E Model "F" Lamp.

Name.....

Address.....

City.....

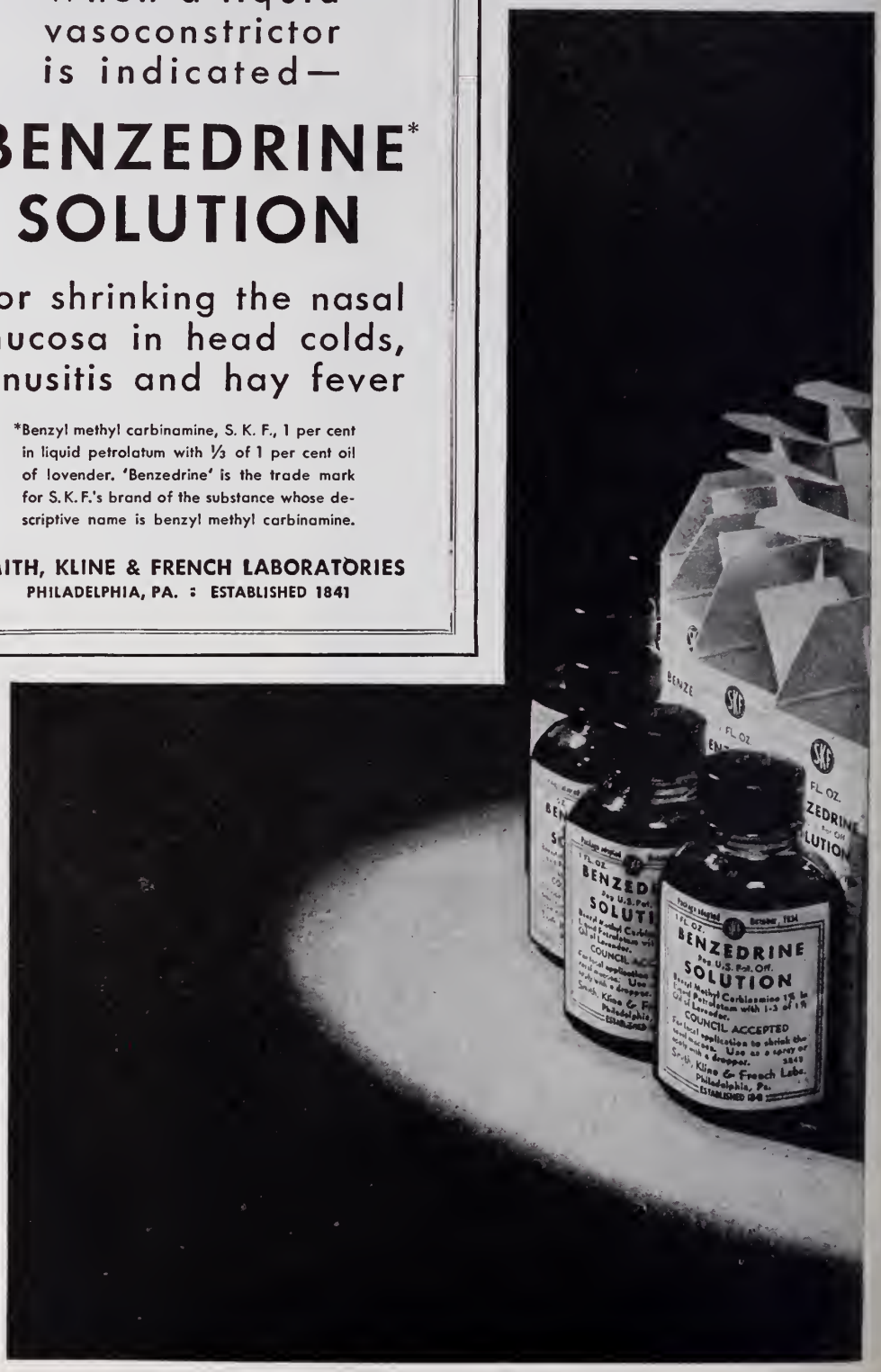
When a liquid vasoconstrictor is indicated—

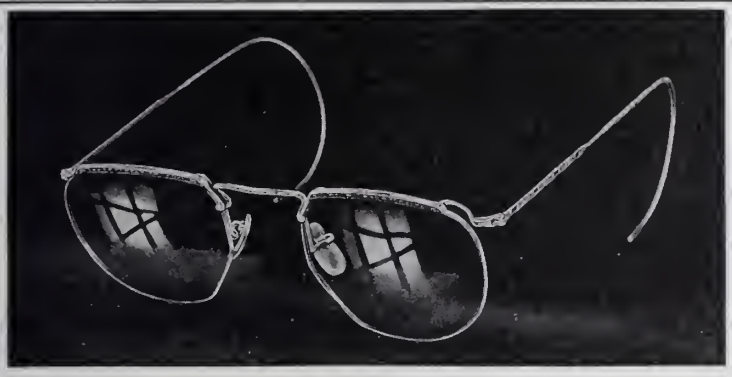
BENZEDRINE* SOLUTION

For shrinking the nasal mucosa in head colds, sinusitis and hay fever

*Benzyl methyl carbinamine, S. K. F., 1 per cent in liquid petrolatum with ⅓ of 1 per cent oil of lavender. 'Benzedrine' is the trade mark for S. K. F.'s brand of the substance whose descriptive name is benzyl methyl carbinamine.

SMITH, KLINE & FRENCH LABORATORIES
PHILADELPHIA, PA. : ESTABLISHED 1841





THE NEW

"WILS-EDGE"

Screwless - Holeless - Rimless

Decidedly Different Definitely Superior

Send for Folder

N. P. BENSON OPTICAL CO., INC.

Established 1913

MAIN OFFICE: MINNEAPOLIS, MINN.

— Branches —

Aberdeen
Bismarck
Duluth
Eau Claire
La Crosse
Wausau
Rapid City
Stevens Point
Albert Lea

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St., Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268–2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D., Frederick Menge, M.D., S. C. Plummer, M.D.

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$37.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan

WINNETKA, ILLINOIS

16 Miles North of Chicago

Thoroughly Equipped Sanitarium

Hydrotherapy - Electrotherapy - Massage - Dietetics

Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department

Ideal for Convalescents

Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 11 Copyright, 1937, by The State Medical Society of Wisconsin NOVEMBER, 1937

Prevention of Disability: A Symposium

Prevention Through Periodic Observation

By M. G. PETERMAN, M. D.

Department of Pediatrics, Marquette University School of Medicine, Milwaukee

EDITOR'S FOREWORD

Within the year the Crippled Children Division, under the directorship of Mrs. Marguerite Lison Ingram, and the Committee on Care of Crippled Children of the State Medical Society, cooperated in presenting twelve district meetings for postgraduate education in this important field. Financed by the Division, groups of Wisconsin physicians presented identical subject matter throughout the State. The Journal is privileged to present herewith a typical group of such presentations.

THE value of periodic observation and "check-ups" on children through baby welfare clinics has been very satisfactorily demonstrated to the public. Large insurance companies, large institutions and industrial organizations have demonstrated the value of periodic examination in the adult.

The success of the baby welfare clinics in the city, and wherever they have been instituted, has demonstrated the value of and has aroused the interest of the public in periodic examination of the infant and child. You need only look into a successful pediatrist's office to observe the reception that parents have given monthly examination of the baby and periodic examinations of the child, to realize its actual value. In other words, the public has been sold on the idea that there should be periodic examination, and the family doctor seems to be the last one to become interested, not only in the procedure of periodic examination but in its actual value.

It seems almost a rule in the home and in the hospital for the doctor who does the delivery to hand the baby over to the grandmother or nurse and devote the rest of his time to the mother. When that baby is bathed and wrapped up, in the majority of cases the doctor never again sees it naked unless the grandmother or the aunt or the nurse tells the doctor that something seems to be wrong, and then they take the baby out of its clothes and make an examination. Most mothers would rather that the doctor take some time to examine the baby before it is "sewed up" for the rest of the winter, than to receive that attention themselves, and certainly there is time for the doctor to examine the mother and the baby as well.

If the physician examines the baby he then has the opportunity of discovering defects before the parents or someone else calls his attention to a clubfoot, a dislocated hip, hydrocephalus, or anything else. I like to see the baby as soon as the obstetrician is through with it. I want to see if the baby's lungs are fully expanded. If they are not, I know that I have about forty-eight hours in which I may fully expand the lungs by any method available, oxygen or carbon dioxide. Within this time the areas of atelectasis can be expanded. If they are not, that baby remains a potentially handicapped child and is more susceptible to pneumonia. I like to listen to the heart to see if there are any congenital anomalies. I like to see if the infant is mature immediately, because the first four to forty-eight hours count for so much. If the head is abnormally large, I should like to do something about a hydro-

cephalus. If the baby has clubfeet, it should be put into the hands of someone who can correct them; the longer they are left, the greater is the problem. Then I like to see if the gluteal folds are normal; whether the great trochanter protrudes on one side. If there is a dislocation, it should be treated early. It can be corrected early. If a congenitally dislocated hip is not noticed by the physician at the time of birth, it is often not noticed until the baby begins to walk. The baby may be twelve or fifteen months old, therefore, before the mother brings it in for treatment, and she may blame the physician for the delay. If the physician who delivers the baby shows enough interest, in the majority of cases the parents will bring the baby back for a check up.

After One Month

After one month perhaps an Erb's palsy will be apparent which was not noted before. Perhaps the head has increased considerably in size and there may be an opportunity to do something about it. An umbilical hernia can be strapped at this time and it will become entirely healed if it is kept strapped. Clubfeet and dislocated hips may be corrected at this time.

In another month I want the baby back to check its weight and measurements. I want to see if the child is beginning to hold its head up; whether it is beginning to respond; and whether the mother is carrying out the prophylactic measures which I have given her.

When the baby comes back at three months, I want to advise the mother to have it immunized against whooping cough because it is the most serious disease in the first two years in life. Furthermore, we are almost helpless in the treatment of a severe case of whooping cough. The only drug of value is codeine and we must give it in large doses. We cannot do a great deal to prevent complications. Therefore any preventive measure which is, first of all, harmless, and second, offers even a 50 per cent possibility of prevention, such as pertussis vaccine, I think should be given. It is a harmless prophylactic measure which ought to be given to every infant. You may choose the time. I give the vaccine at three months and will possibly reduce the age to two months as I want the infant immunized as soon as possible.

At four months the baby comes back and this time I want to check it again to see if it has doubled its weight. I want to add cereals to the diet.

At five months I want the baby to come back again and, if everything is all right, I want to give it more cereals and add to the diet, and I want to see if the baby acts as if it were going to sit up.

At six months the baby comes back again, and if the pertussis immunization has not been possible before, it may be given then. The baby should sit up alone and probably be able to take vegetables and other additions to its diet.

At seven months, I want to vaccinate the baby for smallpox. I do not do this in the newborn or very young, because the vaccination often does not take effect, and the mother may have a false sense of security. She may believe the baby is protected when it is not. She may refuse to let anybody else vaccinate the baby because she thinks it has been done. So I wait until seven months when reactions are still at a minimum.

At eight months the baby is back again because by this time it can take whole milk without sugar, and more foods are added to its diet.

At nine months the baby is brought back again and given diphtheria toxoid. This is not given before nine months because the incidence of protection is lower before nine months. There may be some maternal protection carried in the blood stream, and if we wait until the baby is nine or ten months old, it will do much more good. We should then get a negative Schick test in 96 or 97 per cent of the cases.

At ten or eleven months, I do a Schick test to be sure that the child is immune, and if the reaction is positive, I give another injection.

At twelve months the baby is brought back for the final monthly examination and, if any of the immunization measures have not been carried out before, they are completed

at this time. If the child is normal, the mother is told so. If not, she is told whatever I think might be wrong and advised what to do. By that time, the child should start to walk, and I have a pretty good idea of its mental development. The mother is told to bring the child back in three months. By that time she has enough confidence in me, so that before the baby gets any more immunization procedures she will believe in me and not in some magazine or the radio. She will call me on the telephone and this is exactly what I want her to do. I think every baby ought to have a family doctor and every mother ought to ask that family doctor, and no one else, what to do about immunization, when to give it, and how. I think the family doctor should have a record of all of the immunization procedures which have been carried out on a child. It is far more valuable to the child and to the family to have this record of immunization in the family doctor's file than it is to have a mass of statistics in the city hall. When a child needs tetanus antitoxin, the doctor who treats its family, who is responsible for the care of the child, and who is going to administer the tetanus antitoxin, is the individual who should have the information about what the child has been given.

After First Year

During the following year the child is brought in every three months because I want to watch for postural defects and flat feet and I want to correct them before they get fully developed. At any time during that period that any symptoms begin to develop I know I can straighten them out before they progress very far. If I have seen a child in the past three months and know it has not shown signs of incipient disease, I am better able to tell the seriousness of a condition. I want to check the urine once a year, if not every six months. I want to watch for secondary anemia because almost half of the babies have a secondary anemia. The family doctor may notice it; he cannot miss it, but he does not think there is anything wrong. He does not do a hemoglobin or blood count, but there is no reason why he cannot do this in his office, as I do in mine. If there is a secondary anemia, it can be corrected very easily and the child's resistance can be raised thereby.

At five years, or sooner, I like to do a Mantoux test for tuberculosis.

Now what have we accomplished by this program, by such a schedule? I was taught that a baby will double his birth weight in six months. I do not think I have five babies that have not doubled their weight in four months. Summer diarrhea is almost unheard of in a carefully supervised baby. You know the incidence of flat feet. Usually we can prevent them with proper shoes and proper exercises. You know the incidence of poor posture, the "debutante slouch;" this can be easily corrected, if the child is watched early. The incidence of whooping cough has been greatly reduced. The incidence of diphtheria has been greatly reduced, in spite of the fact that 18 to 20 per cent of the children have not been immunized against diphtheria. There are still more than that who have not been immunized against smallpox. Why? Because the general practitioner has neglected a good opportunity. Part of his failure lies in the fact that he does not call the attention of the parents to these two measures which he could do in his office; which anybody can do in any office; and which would increase the respect that his patients and parents have for him. If he would show enough interest in the family to immunize against diphtheria and smallpox and probably against whooping cough, he could remove those diseases and the community and the family would appreciate it. I think the health department would be more than willing to cooperate if it could obtain the results which can be obtained through these measures. The medical profession has lost, through sheer neglect, this marvelous opportunity of immunization. I can assure you that no successful, wide-awake pediatrician has lost this. In his practice, the immunization is completed by the end of the first year. I think the health department is glad that it has been accomplished. Thus far, it has not reached down into the first year, to the period before the child gets to the preschool age. We can still get the babies in

the first year of life and we can carry out the immunization program. It is a wonder that the doctor has allowed this practice of prevention, which is the practice of the future, to slip out of his hands into the hands of the health departments.

DISCUSSION

Question: I would like to say that I think that those of us who are in pediatrics or in general practice cannot help but feel that we have had a very unusual presentation of a life of a pediatrist, and that some of us have neglected many things. Dr. Peterman, in his immunization of a child, certainly shows us that this subject comes very definitely under prevention of disability. Dr. Peterman has given nothing further because of time.

In the last week we had a report on 500 children given whooping cough vaccine in which 50 per cent were protected; the other 50 per cent contracted whooping cough. However, I do not think that should deter us one bit from going ahead. We know that none of these immunizations are 100 per cent.

I certainly would like to thank Dr. Peterman for the presentation. It should stimulate us all to continue to keep the practice of preventive medicine in

Periodic Observation—Peterman

At birth look for:

1. Prematurity—weight under five pounds
2. Areas of atelectasis—treat with oxygen
3. Imperforate anus—have surgeon operate
4. Congenital heart disease
5. Hydrocephalus
6. Wryneck—correct early
7. Clubfeet—correct early
8. Dislocated hip with gluteal folds absent or shallow and trochanters not symmetrical—correct early
9. Jaundice

One month:

1. Start cod liver oil and orange juice
2. Look for Erb's palsy and umbilical hernia—strap with waterproof adhesive after folding in umbilicus

Two months:

1. Weight and measurements—monthly
2. Ability to hold up head
3. Check formula

Three months:

1. Immunization—whooping cough (Sauer's only)
2. Prevent thumb and finger sucking

Four months:

1. Child's birth weight should be doubled
2. Add cereals to diet
3. Look for rickets and anemia; will be found in half of the infants

Five months:

1. Addition of more cereals to diet
2. Postural ability
3. Posterior fontanel closed

Six months:

1. Postural ability (baby should sit up alone)
2. Add vegetables to diet—properly canned are preferable

Seven months:

1. Add egg yolk to diet except in eczema
2. Vaccination for smallpox

Eight months:

1. Add scraped beef and baked potato to diet
2. Whole milk diet (no sugar)

Nine months:

1. Diphtheria immunization—first injection toxoid
2. Add zwieback and mashed fruit and gelatine

Ten months and eleven months:

1. Should stand alone
2. Second diphtheria toxoid, one or two months after first

Twelve months:

1. Three meals a day
2. Final monthly examination
3. Any immunization procedures omitted before are completed at this time
4. Baby starts to walk and talk
5. Examine urine
6. Schick test two months after last injection of toxoid
7. Complete physical report given to parents

our own offices instead of allowing it to be casually directed by well-meaning public societies.

Question: I would like very much to have a chart of the examinations Dr. Peterman makes at each month. There is a handful of men here, and what he has said will amount to practically nothing as compared to what it might mean if all the doctors of the State were here. What I am getting at is, if such a chart could be prepared and broadcasted by the State Medical Society or the State Board of Health, or somebody else, it would be a very valuable thing. These specialists talk to those of us who are general practitioners and condense it in a very fine way for us. We go home and forget it. If it were in concrete form we could preserve it and use it. I think a vast amount of good would be derived from it. That is just a suggestion. It might be of some practical value if it could be put down and then we would have the valuable suggestions that have been made.

Dr. Harper: I would like to say the Board of Health is 100 per cent on immunization. I would say that not only the State Board of Health, but the local board of health would be more than glad if this immunization would go on as suggested by Dr. Peterman. I did not hear the first part of the talk but if the first part was as good as the last, it was excellent. The State Board of Health would be very glad to print the material or cooperate with the State Medical Society in distributing this material. It would be a good thing. If some of the men ever see a good case of smallpox or diphtheria, they will not want to see any more. The Board of Health is plugging along trying to get medical men to take the child and immunize him on these known procedures.

I want to hear Dr. Peterman discuss scarlet fever. In a CCC Camp, a little over a year ago, all the boys were immunized against scarlet fever. The Dick test was done on these same fellows and it was negative in everyone that it was used on a year ago. New men had come in and the Dick test was positive on those.

The public officials, as far as I know them, and I know them pretty well, have been plugging away at this all of these years, and when it comes to the medical profession and a discussion of this type, it has apparently more weight from that source than from any state health department. I want to commend Dr. Peterman on the very instructive and practical way in which he has constructed his subject.

Dr. Peterman: I thank Dr. Harper. I should like to ask him whether the children's division does not have examination forms which are being used. Are they available for men in practice should they be desired? They do exist, but whether they are available for distribution I do not know.

Dr. Harper: We have them and they are available for distribution.

Dr. Peterman: In regard to the tuberculin test, it should be done at least at five years and again at ten years and any other time if there is the slightest suspicion of tuberculosis. It is a simple procedure. Purified tuberculoprotein is available now and it keeps indefinitely. There is no reason why every physician should not be able to do a Schick and tuberculin test. I give two injections of toxoid because one injection makes a sore arm and a subcutaneous nodule which lasts for six months, and the parents seem to object to that in private practice. They may not in public practice. The examinations I make monthly include the weight, height, teeth, fontanels, time when child sits up, walks and talks, and signs of incipient disease, particularly in the skin and in the ears. No pediatrist misses this. Once you get started examining ears, you keep finding middle ear infection so often that you cannot dismiss a child without examining its ears. The feedings are also regulated.

In regard to the question on the paper, "What observation can you give from observation of mass immunization against scarlet fever?" I have studied all the literature I can find on scarlet fever. I have been interested in the subject since the Dicks made their first announcement. I obtained some of the Dick toxin and did some of the first testing on school children and babies. It is my opinion that the etiologic agent of scarlet fever is not one single streptococcus and it is not the single streptococcus that I have seen. Many men, competent clinical investigators and others, do not think that it is a single organism. A lot of work has been done on the pathology. Rosenow still maintains there is no one single strain of streptococcus which causes scarlet fever. The whole Dick hypothesis is based on a single strain of streptococcus for scarlet fever. There is variation in the Dick test and in its interpretation. It indicates that the individual is either sensitive or not at that particular time to that particular strain of toxin used and it does not prove a thing. If the Dick test is open to question, if the etiologic agent is open to question, what justification can there be in preparing a vaccine from this organism alone? Dr. Harper is familiar with the situation during the last three years that we have had scarlet fever in Milwaukee. He will agree that the majority of cases were so mild that in 95 per cent of those I saw at the Children's Hospital and in private practice, no treatment was necessary. Dr. Harper even shortened the quarantine period to three weeks. Reports from the isolation hospital, where obviously they get the sickest patients, state that in 83 per cent of the patients the disease was so mild as to require no treatment whatsoever. Now, given a disease which has been as mild as scarlet fever has been in this country and particularly in this vicinity, where at least 83 per cent of the patients in the hospital have required no treatment, what justification can there be for mass immunization when it is admitted that one third of the children who started out with the immunization program drop out because of the reactions? What justification can there be for submitting a child to five injections when any one or

all of them might make him as sick or sicker than he would be if he developed scarlet fever? I cannot honestly or conscientiously immunize for scarlet fever. I will have to see other evidence before I do so, and no patient in my practice has been immunized. I think a health officer may become interested in a problem. He may know a great deal more about it than you and I, but, when he declares through the newspapers, before he has convinced his colleagues in the profession, that he must immunize their patients, I think he has lost entirely his sense of perspective. Dr. Harper is our best example of a health officer who works with his colleagues. That is my ideal of a health officer. This is not personal criticism in the least, but, when a health officer makes his first appeals through the press and the radio, when he knows he cannot get the united support of his colleagues or county medical society, I think he is treading on rather dangerous ground. I do not care what statistics are presented. I will admit that a child who has a positive Dick test and has five injections will not have a rash if he gets scarlet fever. Now if he does not get a rash, you and I are deprived of the most important diagnostic sign in scarlet fever. After all, scarlet fever is an acute infectious disease with the symptoms of sore throat, fever, vomiting and rash. The rash is the most reliable clinical sign we have and there is yet no clinical sign which equals it for diagnosis. We still must depend upon that sign for establishing the diagnosis. Now, given a group of individuals who are immunized with the five injections, who do not develop a rash, but who have sore throat, fever and vomiting, we cannot get confirmation of a diagnosis of scarlet fever. During the last three years we have had scarlet fever in Milwaukee, an enormous number of cases, and during this time I have had charge of an orphanage of 100 children. Taking care of these children are women who mingle with people on the south side, where the disease was most prevalent, and I can say that no case of scarlet fever has developed in that institution and no immunization has been practiced. You know the statistics that the French have produced regarding B. C. G. immunization, and yet the very fundamentals in the B. C. G. have been proved by real investigators to be wrong.

I do not ask you to accept my experience in scarlet fever, my experience in immunization which I have not done, or my interpretation. I can quote you Wadsworth of New York State, and Park of New York City. You can come back in your argument with the report from Henry that no case of scarlet fever developed in his series, and yet there are at least five cases in that series. The health department reports from Milwaukee, the report which Jones made from Berea College, Kentucky, and reports from one or two other places recommend immunization for the control of this disease.

With the percentage of reactions, and with the point that you dare not tell the parent when you finish with the injections that the child is going to be immune to scarlet fever, how can you put such a procedure up to the parents and still maintain your role as their honest medical adviser? I dare not because I would not want to be responsible for some of the reactions I have seen come into the Children's Hospital. I would not be responsible for them and I would not submit any child to five injections. When I use diphtheria and smallpox vaccine, I can assure the parents that I am doing no harm. May I refer you to the latest book on "Preventive Medicine" (Boyd—W. B. Saunders Co. 1936). On page eighty-three, Boyd says, "Susceptibles may be actively immunized with scarlet fever toxin. As yet a standard procedure for the purpose has not been devised. A method that would confer an effective immunity with not more than three immunizing doses would appear desirable. Toxin that has been neutralized by mixture with sodium ricinoleate appears most suitable at present."

The Early Diagnosis and Medical Treatment of Poliomyelitis

By H. KENT TENNEY, M. D.
Madison

THE clinical history in poliomyelitis is usually so indefinite as to contact, and so forth, that in the main one must rely upon the results of careful examination. Therefore it is of vital importance that the condition be kept in mind and that all examinations of sick children be thorough and complete.

We will pass over the etiology and pathology and come directly to the question of diagnosis. There are three well-recognized modes of onset:

1. That in which there are no symptoms before paralysis develops. This is rare but undoubtedly does occur. The child is found to have certain muscle groups paralyzed on waking up, and even a careful history from intelligent parents fails to show any evidence of previous illness. Close questioning in most of these supposedly sudden paralyses reveals that the child had been having "a little trouble with his teeth" or that "his food had not agreed with him for a day or so."

2. The so-called dromedary type in which the preliminary symptoms of fever, malaise, etc., subside for one to two days and then return to be followed by paralysis. (This term, "dromedary," is an error because the dromedary has only one hump.) This form is more common than the sudden paralysis type, but is still relatively uncommon. The first phase has the indefinite gastro-intestinal or respiratory symptoms with fever, and the second phase has the meningeal symptoms going on to paralysis.

3. The common type in which the symptoms of systemic infection progress steadily to undoubted involvement of the nervous system and paralysis.

Now, as to the symptomatology: The general symptoms are headache, fever, respiratory and gastro-intestinal involvement. There is nothing diagnostic about any of these, and, in general, it can be said that they are apt to be severe. In other words, a severe sore throat, profuse diarrhea, or persistent vomiting are not likely to herald the onset of poliomyelitis. Fever is an almost constant symptom. It may reach 105° F., but more often ranges from 100 to 103° F. It usually lasts from four to ten days but there is nothing characteristic in the curve. The pulse rate is usually in proportion. A disproportionately high pulse rate is seen in early bulbar involvement and is hence a bad prognostic sign.

Suggestive Symptoms

Now the symptoms suggesting involvement of the meninges and nervous system:

Headache is present in nearly all cases, but is not necessarily severe. It is seldom localized but may extend to the back of the neck.

Hyperesthesia is common and may be generalized, but is usually more severe over the large nerve trunks and along the spine. Pain in an extremity may presage paralysis.

Drowsiness alternating with irritability is frequently seen, but delirium and convulsions are rare.

Meningeal symptoms frequently seen are stiffness of the neck and spine. In children able to sit up, the stiffness and pain in the spine is seen by their unwillingness to sit unsupported and to bend the head toward the knees. In infants it is brought out by lifting them under the buttocks and shoulders when the head drops back. This is the so-called spine sign. A moderately positive Kernig and Brudzinski are frequent.

Changes in the reflexes are important. Early they are equal but exaggerated. At times there is a Babinski or even clonus. Later the deep reflexes become diminished or lost especially when paralysis is about to develop.

When paralysis occurs it is most common on the second or third day, except in the "dromedary" type. Paralysis may develop suddenly or be preceded by tremors or muscle pain and tenderness. It is usually complete in two to three days.

There is no need to discuss the varieties of paralysis seen, except for a few words about the ascending type. This is frequently referred to as the bulbar type because it eventually involves the medullary centers and is responsible for most of the deaths. However, there is a true bulbar type in which the medullary centers are almost primarily involved. The peculiar symptomatology of this type is the inability to swallow or spit with a resulting large accumulation of secretion as paralysis of respiration progresses. There is little if any disturbance of the sensorium, which makes these cases particularly distressing.

New York Classification

According to the work of the New York Health Department the disease can be classified under five headings:

1. *The abortive type.* Here the general symptoms are present, but there is no involvement of the central nervous system. As these general constitutional symptoms are mild and nonspecific in nature, it is obvious that the diagnosis of the abortive type is extremely difficult. It really depends on neutralization tests.

2. *The nonparalytic type.* This includes the cases showing some evidence of central nervous involvement such as muscle pain and even transient muscular weakness. They may also show definite meningeal symptoms.

This type is also difficult to diagnose except in the presence of an epidemic.

3. *The type with subcortical paralysis.* This includes the usual spinal paralyses as well as the ascending or so-called bulbar type.

4. *The encephalitic type.* These are rare, but there is experimental evidence of the real existence of such a form. Most of the cases called polioencephalitis are really epidemic encephalitis and not polio. Under this form belong those with marked stupor, etc.

5. *Ataxic type.* These are also rare. They show lack of coordination, nystagmus, etc. Postmortem shows involvement of the cerebellum.

Laboratory Aids to Diagnosis

The spinal fluid shows deviations from the normal in almost all cases although it is possible to have a normal fluid in true poliomyelitis.

The usual findings are: Increase in cells from slightly above normal to 1,000 or even more. Lymphocytes and large mononuclears predominate in most cases. At times the polymorphonuclears predominate and it has been said that the type of cell shifts with the progress of the disease. However, later studies seem to indicate that the type of cell represents the type of reaction rather than the stage of the disease.

The fluid is clear or slightly opalescent and is under somewhat increased pressure. Occasionally there is a delicate pellicle formation.

The protein shows slight to moderate increase. There is no parallelism between cell increase and protein increase. Some fluids show a high cell count with but little increase in protein, while others with a low cell count show marked elevation of protein.

The sugar content is normal or high, never reduced.

The cell count has usually returned to normal by the end of two weeks, but the protein may remain elevated for seven or eight weeks.

The colloidal gold reaction is quite constant in showing changes in the lower dilutions. The common reactions are 1122100000 or 1123321000.

The spinal fluid findings as described are probably present in the abortive and nonparalytic type as well as in those with paralysis.

Other laboratory findings are not of much assistance. Moderate leucocytosis is reported by almost all observers. Tests of serum for its ability to neutralize virus are too expensive and time consuming to be of any practical value.

Differential Diagnosis

The conditions to be considered in the preparalytic stage which are chiefly the acute infections of the central nervous system are:

Purulent meningitis—streptococcal, influenzal and epidemic. The signs of meningeal irritation are usually more severe. Herpes is often seen in epidemic form. The spinal fluid shows more cells, organisms are present and the spinal fluid sugar is low.

Tuberculous meningitis. There is a history of slower onset. Physical findings may be very similar. Spinal fluid has a pellicle and organisms.

Encephalitis. Differentiation is not always possible. The onset is more gradual. If symptoms last more than two weeks, it is probably encephalitis.

Meningism as part of onset of other acute infections may cause confusion. Thorough search for underlying conditions to account for meningeal symptoms is always necessary. Spinal fluid usually under pressure, but otherwise about normal.

Serous meningitis seen as part of other acute infections as mastoid disease or sinusitis. The cell count is usually higher and polymorphonuclears predominate.

After paralysis develops, other conditions must be considered:

Diseases involving the joints, as rheumatic fever and tuberculosis of joints. Careful examination shows there is no real paralysis.

Psuedoparalyses of rickets, scurvy and osteomyelitis. Again examination will show that failure to move the extremity is due to pain and not to paralysis.

Paralysis from other conditions. Transverse myelitis has loss of sensation below the lesion. Peripheral neuritis from arsenic and lead have more gradual onset and the spinal fluid is normal.

Treatment

Prophylaxis. Quarantine should be maintained for at least two weeks. Because of the danger from abortive and nonparalytic cases, children should not be allowed in public gatherings during epidemics.

Gargles and sprays are condemned by Park and the New York Board as they seem to lower the normal resistance of membranes. Their use has been revived by the Rockefeller group who believe the portal of entry to be the olfactory nerve. However, as Toomey has given very good evidence that the gastro-intestinal tract is the portal of entry, the value of sprays and gargles is still further questioned.

Vaccines made from spinal cords of infected monkeys have been used by Park and by Kolmer. They report a satisfactory immunity as shown by neutralization tests on the serum, but Leake of the U. S. Public Health Service believes it is still inadvisable. He reports twelve cases of virulent polio in vaccinated individuals developing within fourteen days of inoculation.

Drug treatment. Urotropin has been used most extensively because it can be found in the spinal fluid. Results in late reports are not encouraging.

Adrenalin and ephedrine have been used to reduce edema of the cord. Results here also are not encouraging.

Hypertonic solutions given intravenously have proved disappointing.

Sedative drugs such as phenobarbital are useful sympathetically.

Lumbar puncture. Practically all observers agree that spinal puncture gives some relief of symptoms and may be of benefit in reducing edema and subsequent paralysis.

Use of sera. Rosenow and others have reported excellent results with his antistreptococcus serum which he believes is specific. Others have been unable to demonstrate any specific value of the serum experimentally. It is very difficult to get adequate controls which may account for some of the confusion. The use of convalescent serum has received much attention and reports here also have varied. Many of them have been encouraging, but here too the proper control is difficult to obtain. Probably the most complete study of this question was made by the New York Board of Health under the direction of Dr. Park. They were forced to conclude that the serum did no good. In fact, the statistics showed a little more severe paralysis in the treated cases. A personal note from Dr. Park last month confirms his conclusions of 1931. On the other hand, Levinson of Chicago says that he has the "impression" that serum given in 100 cc. doses is of distinct benefit. He says he has no controls to substantiate his impression. Incidentally, if one wants to get convalescent serum of almost any kind, the Sarah Morris Hospital in Chicago can supply it.

Summary

Early diagnosis demands a careful history followed by careful examination.

Earliest signs are those of meningeal irritation.

Unexplainable meningeal irritation demands spinal puncture.

Repeated puncture is the one measure generally agreed upon as being useful.

Sedative drugs such as phenobarbital may be needed.

Nutrition should be watched.

Serum in large doses may be given if desired.

The Prevention of Disability in Poliomyelitis

By H. L. GREENE, M. D.
Madison

ABOUT 1900, orthopedic surgeons became concerned not only with correction of deformity, but prevention of deformity in infantile paralysis. Orthopedic treatment should begin at the onset of the disease, simultaneously with the medical treatment. The production of deformity is unnecessary and should not exist if proper orthopedic treatment is instituted early.

The cardinal rule in the early stages of in-

fantile paralysis is absolute physiologic rest. This can only be obtained by the afflicted individual assuming a posture of normal anatomical position of rest and a constant supervision of this posture. For example, if the feet are weighted down by bed clothes, the anterior muscles are stretched and the heel cord tightened, resulting in a foot drop. Rest means correct position of the muscles and joints; physiologic rest, and not simply rest in bed. Such rest of afflicted muscles can only be obtained by proper and carefully supervised splintage in neutral positions. The involved extremity should be placed in neutral position to protect weakened muscles from the continued pull of more powerful opposing muscle groups and from the effect of gravity.

Relief from muscle soreness and neuritis, as well as prevention of deformity, is best obtained by adequate fixation of the extremity with plaster casts or splints. During the acute tender stage, the patient should be placed upon a firm mattress which does not sag. Leaves from a table or similar boards may be placed between the mattress and springs. The upper extremity is best protected by an aeroplane splint or, in its absence, the arm may be tied in abduction to the head of the bed to prevent any strain on a weakened deltoid muscle. The elbow may be somewhat flexed or extended beyond a right angle, depending upon the existing power of the biceps or triceps. The hand should be splinted, usually in the cock-up position to prevent deformity.

The lower extremity is best protected by plaster casts with the knee in extension, the foot at a right angle and slightly inverted. Before the plaster of paris bandages are applied, the limb should be covered with a stockinette and then with sheet wadding. The plaster of paris bandages should be applied with the limb in proper position. When the cast has hardened, it should be bivalved longitudinally into an upper and lower section. The lower section may be held on to the limb by binding the upper section on with adhesive plaster or by the use of an ace bandage. This bivalved plaster cast readily allows for daily removal and gentle cleansing of the extremity. As a substitute for plaster casts, a metal splint similar to a Thomas splint may be obtained from a blacksmith and bent to the desired position. The knee should be carefully watched to prevent back knee; as slight flexion is to be preferred to hyperextension or back knee.

The early testing of muscle power serves no purpose and is actually harmful to the muscles themselves, in the acute stage. The patient should be kept clean but no vigorous bathing should be allowed. Electrical stimulation, massage, or muscle training is condemned during this stage. Nursing care should be consistent with the prevention of bed sores. The application of radiant heat relieves muscle spasm and is beneficial to the circulation.

Physiologic splintage should continue for six or seven weeks or until practically all tenderness has disappeared. In the recent epidemic in Los Angeles, Dr. Lowman has started hydrotherapy while the patient was still in the acute stage, as soon as he was out of quarantine or about the end of the fourth week. Such procedure is possible when an elaborate hydrotherapy tank and apparatus is available. He believes that the chief value of early underwater exercises lies in the following:

1. The beginning of treatment early in the convalescent stage.
2. The lack of gravity and freedom of muscle spasm allows certain movements not otherwise possible.
3. Such treatment boosts the patient's morale.
4. The patient receives a particular stimulus from the water because of the warmth and the ease of motion.

Such locations as Warm Springs, Georgia, and others are popular for their hydrotherapy treatments; not for the miraculous healing powers of the water itself but for its readily abundant source of warm water.

Re-Educational Exercises

After all muscle tenderness has subsided, a program of re-educational exercises must be instituted, being cautious not to produce pain or fatigue. Warm baths in a bathtub are extremely beneficial and gratifying to the patient. Gentle movements under the water

at a temperature of 95 to 98° F. warm the involved muscles. The buoyancy of the water counteracts gravity to the extent that danger of overfatigue is lessened. As muscles lose their tenderness, the patient may be turned on his abdomen with the toes hanging over the edge of the mattress. This position is effective in counteracting a tendency to hip flexion deformity and scoliosis and relieves a tendency to foot drop.

It is during the convalescent period that muscle training should be started to strengthen weakened muscles. Muscle training should be preceded by baking and mild massage to increase circulation of the part. An effective method of carrying out muscle re-education by a trained nurse or by the mother in the home has been devised by the late Dr. Gaenslen. This method is of tremendous value in the absence of hydrotherapy. Briefly, the method consists of supporting the arm or leg to be treated in a sling from overhead, thus eliminating the weight of the extremity during movement. It is adaptable to either the upper or lower extremity and easily taught to the nurse or mother in the home. Such sling suspension exercises readily reveal minimal muscle power and a slight gain in power is easily recognized.

To sum up the convalescent stage, we may state that the sensitive stage is over. The paralyzed muscles make their greatest gain during this stage, and active muscle training should be faithfully carried out. The chief objectives are:

1. Making a complete muscle chart to show the extent of the paralysis and comparative strength of the muscles.
2. Watching for and preventing deformity.
3. Stimulating circulation and increasing nutrition.
4. Promoting relaxation and rest.
5. Protecting muscles from overstretching.
6. Preventing contracture.
7. Re-educating and strengthening muscles by suitable exercise.

Functional Use

The difficult problem presented in the orthopedic care of a case of infantile paralysis is the question of when to begin functional use. In the upper extremity, as soon as the muscles are strong enough to act unaided, active use may begin, but fatigue should be avoided. In the lower extremities, superimposed weight bearing may cause muscles to cease improving or lose power under stress. The things to watch during this period are:

1. Allowing the foot on the sound side to develop a flattened arch from overwork and overweighting in unilateral cases.
2. Production of pelvic deformity and scoliosis from a short leg. (Spinal curvatures in the third degree, when rotation has occurred, cannot be strengthened.)

Re-educational muscle exercises should be continued as long as six months after the condition remains stationary before it is reasonable to assume that further noteworthy improvement is unlikely.

Braces should be worn when the child is first allowed to walk, which is from six months to a year. Braces have four main functions:

1. They protect weakened muscles.
2. They share the strain of weight bearing, such as walking with a caliper splint.
3. They act as an artificial leg and permit walking when the patient would otherwise be confined to bed or a wheel chair.
4. They aid in preventing deformity, such as a drop foot or back knee.

After a year of re-educational effort and bracing, operative reconstruction by joint fusion and muscle transplants may be considered to prevent deformity and restore function.

In closing, I want again to emphasize the value of underwater exercise:

1. Pain and spasm are lessened when motion is attempted under water.
2. The active use of the member is attempted with a painless arc, and then the arc is gently completed by an assistant with the patient continuing the effort of the motion.

During the convalescent period, muscle re-education in a bathtub is of distinct value. The chief value is the buoyancy and possible movement of the whole body or any of its parts in any direction. After the re-educational program has been completed, walking in water and swimming are to be recommended.

We should never forget that in any case of infantile paralysis the orthopedic prevention is far superior to the correction of a deformity.

COLLATERAL READING

1. Blount, Walter P.: The Early Orthopaedic Treatment of Infantile Paralysis, Wisconsin M.J. 32: 693 (Oct.) 1933.

Rheumatic Heart Disease in Childhood

By HAROLD E. MARSH, M. D.
The Jackson Clinic, Madison

ONE of the greatest problems confronting the medical profession today is the mounting death rate from heart disease. While deaths from tuberculosis are decreasing, those from heart disease are increasing. The prevention of heart disease becomes the problem of the control of two infectious processes, acute rheumatic fever and syphilis; and a number of processes of unknown nature which are grouped under hypertension and vascular disease. Against syphilis we have effective weapons. Cardiovascular syphilis usually develops in patients when the disease has been inadequately treated, or not treated at all. When it is treated early and vigorously, the incidence due to syphilis is greatly diminished.

The effective control of the two most common causes of heart disease, rheumatic fever in early life and hypertension and vascular disease in later life, is, in the present state of our knowledge, beyond our power. But even with our meager knowledge, we can further the object of preventive medicine with improvement in the duration and quality of life. To explain how we may do this, is the intent of what follows.

We are interested here only in rheumatic heart disease. Consider the magnitude of the problem when one learns that 2 per cent of all school children are afflicted with the disorder, which means, for instance, in a city like Chicago, 10,000 children are thus disabled. Seventy-five per cent of these children will live less than twenty-three years after the onset of their rheumatic fever. A child will have only an even chance of living twelve years and only one chance in five of living twenty-five years after the initial infection.

The highest incidence of rheumatic infection in childhood occurs during school age; that is, from six to fifteen years. Under the age of twenty, four out of five cases of heart disease have a rheumatic origin; in the next decade the proportion is two thirds; in the fourth decade, more than one half.

The incidence of endocarditis in rheumatic fever is estimated anywhere from 40 to 70 per cent.

These children with heart disease are just as truly cripples as those with bone deformities or paralyses; if they are not cripples during early years, they are potential cripples for later years. We cannot prevent rheumatic fever and the resulting heart disease, but the future health of these children will depend to a large extent upon the type of care which they receive early in the disease.

Rheumatic fever was once considered an acute illness. It is probably, however, one of the most striking examples of a chronic illness, in this respect paralleling the course of tuberculosis. Its onset and exacerbations are acute, although much evidence exists indicating its extreme chronicity. It is not a disease limited to the joints and to the heart but is as widespread in the body as syphilis, involving the arteries and, at times, the larger veins, the pleura, lungs, peritoneum, kidneys, liver, skin and muscles. With these newer conceptions in mind, the vagaries of the disease may be more readily appreciated.

Etiology. I would like to make these conclusions on etiology. It is obvious that

the cause of the disease has not been established. The fact that so many different organisms have been isolated and are considered the cause of rheumatic fever suggests that probably not one of these, so far isolated, is responsible. Rheumatic fever is a fairly distinct disease entity. It would indeed be surprising were it found to be caused by many different organisms.

Symptomatology. Since the recognition of an active rheumatic infection is of prime importance in the management of the child with rheumatic heart disease, it is advisable to review the signs and symptoms indicative of activity.

It must be realized that the manifestations of rheumatic disease in childhood are often materially different from those of adult life. Swelling of the joints is far less common and redness is relatively rare. There are many cases in which the joints entirely escape involvement and the illness is identified as tonsillitis, influenza or grippe. It is only during the patient's convalescence, or several years later perhaps, that the discovery of a cardiac lesion may raise the question of the rheumatic nature of the since forgotten illness. Further proof of this is found in the fact that patients with mitral stenosis are frequently encountered who deny having been ill with rheumatic fever or chorea. Mitral stenosis, however, is the most typical rheumatic lesion known.

The temperature in children is seldom high or the constitutional symptoms marked. They frequently do not feel sick enough to go to bed. In most instances, there is merely a little pain and stiffness in the joints or even only fleeting pains in the extremities with an elevation of temperature of only one to two degrees.

Malaise and fatigue which are usually associated with fever, pallor, loss of weight, loss of appetite and irritability are symptoms common to all acute infections. They do not necessarily indicate active rheumatism. However, if the child has rheumatic heart disease and there is no other obvious explanation for these complaints, they are, in all probability, due to an active rheumatic infection. The pulse rate gives the best information of the actual cardiac state. If the pulse is taken when the child is asleep and when awake (the alert rate) and if, in the absence of fever, the sleeping pulse is about the same as the alert rate, activity can be generally presumed. On the other hand, if a drop of ten to twenty beats per minute during sleep is noted, the tachycardia when awake is probably of nervous origin.

A recrudescence of the rheumatic infection is often anticipated by a gradual quickening of both sleeping and alert pulse rates. Complete reliance cannot be placed on the temperature since active rheumatism is so often an afebrile disease and slight fever may easily have other causes.

Extension of physical signs in the heart such as further enlargement of the heart, changing murmurs, or the involvement of other valves, point to a low-grade cardiac inflammation. The presence of subcutaneous nodules, or active chorea usually means activity. The white blood count is not reliable, as it is often normal or only slightly raised in a very active lesion. Sedimentation rate, however, of the red blood cells, if other acute fevers can be excluded, is often of considerable assistance.

It must be remembered that the murmurs of rheumatic heart disease may not become manifest for a considerable period of time after the initial infection. This means that any child who has recovered from an attack of rheumatic infection without any apparent heart involvement should be examined periodically. It must also be remembered in this connection that the murmurs due to the acute endocarditis frequently disappear to be followed later by those due to the cicatricial changes at the orifice. The disappearance of the murmur does not, therefore, justify a favorable prognosis. This can only be given when the murmur has not reappeared after an interval of one or two years.

Among those children who show minimal signs on physical examination, many will show evidence of cardiac disease if given careful fluoroscopic, roentgen and electrocardiographic examinations. In such instances of minimal findings, fluoroscopic examination with the aid of barium in the esophagus will frequently show an enlarge-

ment of the left auricle, both in the antero-posterior and lateral views.

Shortness of breath frequently manifested in a child by his inability to keep up with his playmates is one of the early signs of myocardial failure. On physical examination the respiratory rate is almost always found to be accelerated, and, if the respiratory rate is over thirty per minute, it is usually accompanied by some engorgement of the liver. Moreover, a child rarely develops cardiac failure from overexertion unless there is a concomitant acute inflammatory process in the myocardium. Examination of the heart generally reveals some sign of an active myocarditis such as tachycardia, gallop rhythm, some cardiac arrhythmia, poor quality of the heart sounds and a churning, tumultuous murmur which extends from systole into diastole, a blurred third heart sound, or, in occasional cases, a high-pitched screeching murmur or a pericardial friction rub.

Treatment

One can divide the treatment of rheumatic heart disease into three periods: (1) the active stage; (2) the convalescent stage; (3) the inactive or completely quiescent stage.

1. *Active stage.* The ideal treatment of acute endocarditis would be to stop the heart and thus prevent all irritation of the endocardium and strain on the myocardium until the inflammatory process had run its course. Such treatment being obviously out of the question, the next best thing is to diminish the number of heart beats as much as possible. This can be done only by cutting down, or "cutting out," those things which increase the rate of the heart. They are physical exertion and nervous excitement. Rest, both physical and mental, is therefore the one important thing in the treatment of acute rheumatic heart disease in childhood. Everything else is subordinate.

This period in which the infection is being combated is very important and may vary according to the severity of the infection from weeks to many months. Absolute rest in bed is imperative in this stage until the temperature has been normal for at least two to three weeks, during which period the child has been without medication, and until the pulse has returned to normal or nearly normal for the child's age. In some instances, especially in aortic lesions, it will always be a little accelerated. It is not safe, moreover, to even consider allowing the child to leave the bed before the first heart sound is strong and the second pulmonic, if the lesion is at the mitral orifice, normal or accentuated. During this period of active infection, no exercise of any kind, active or passive, should be allowed and the child should be kept as nearly flat in bed as circumstances will allow. There is nothing, of course, about the treatment of acute rheumatic heart disease by rest which diminishes the importance or abrogates the necessity for good food, fresh air, and sunshine.

The question whether salicylates are indicated in the treatment of rheumatic endocarditis and myocarditis is not settled. There is no evidence that salicylates alter the course of an acute carditis, although unquestionably they reduce the inflammatory process in the joints and reduce fever. When there are joint manifestations, salicylates are clearly indicated.

2. *Convalescent stage.* By the time the child is ready to leave the bed, he feels quite well, has been allowed to sit up in bed, and is more active.

The first increase in activity is to allow the child to sit in a chair for one half hour daily. If the slight additional strain which sitting in a chair entails causes a rise in the temperature or pulse rate, it must be abandoned until these are normal. Once the child responds well to this increase in activity, the period of time during which he sits up may be gradually increased until he sits up in a chair for two hours a day. After the child is up in a chair for two hours a day, no further increase should be attempted for the next two weeks. Only if the temperature, pulse and respirations remain normal and the child remains asymptomatic during this two-week interval, is further increase to be recommended.

The next step is to allow the child to walk across the room or to the bathroom (provided the bathroom is on the same floor and reasonably close to the child's room). He should begin by making the walk once a day,

increasing it very slowly, not more than one trip every other day, until he makes the trip as often as necessary (six to seven times a day). When this stage has been reached, no further increase in activity should be prescribed for another two weeks.

Thereafter, provided there is no recurrence of any rheumatic manifestations, the child may be allowed to stay up two hours in the morning as well as two in the afternoon. In two weeks more, he may be allowed to remain up for the noon meal, or for two hours in the morning and three in the afternoon, or he may be allowed to do a little more while he is up. The next step is going out of doors, which, if he is dressed and plays in the yard, should be limited to a half hour. Further increase in allowance of outdoor activity should be regulated by the response to the exertion.

This schedule indicates that convalescence from acute rheumatic fever is a long, slow procedure. These precautions, however, are extremely necessary because of the difficulty of knowing when the process finally becomes inactive and because of the great danger of exacerbations. The prevention of the exacerbation and recurrence of infection is the most important factor in the life of the child with rheumatic heart disease.

Inasmuch as neither the etiology nor the mode of transmission is known, the most that is possible today is to establish and maintain a high level of general health and to keep the child free from infection. One way to diminish the possibility of the original infection would be to have been born and lived in the South where the incidence is far lower than in the North.

Foci of infection should be eradicated. Whether tonsillectomy is of value in the prevention of reinfection is open to question. Diseased tonsils should be removed.

3. *Inactive stage.* In all the work on the rheumatic child, a thorough and intelligent follow-up system is essential to success. A child, once rheumatic, must be observed for years, and only good clinical observation over this period can determine and intelligently direct his work and play.

If the cardiac damage is minimal and the child shows no symptoms or signs of active rheumatic infection and has a good exercise tolerance, he may be permitted free activity. He must learn to live within his strength and be cautioned against undue fatigue. The only restriction placed upon such a child is that he never undertake what a normal child would find exhausting.

Finally, there remains to be considered the child whose heart is so severely damaged that he never becomes entirely asymptomatic. Children of this type have enormous hearts with little or no cardiac reserve; the majority of them always suffer from dyspnea on exertion. Many of these children have an adhesive mediastinitis.

By and large, these children with enormous hearts, with or without mediastinitis, compose the group which is benefited by digitalis.

In general, it is better to allow these children with little or no cardiac reserve to be up and about, maintaining compensation with the aid of digitalis than to keep them in bed and compensated without digitalis. Inasmuch as their progress is hopeless, it is a part of kindliness to grant them the maximum possible enjoyment of life.

In contrast to these children, the children with a mild rheumatic infection and those with little or no cardiac enlargement have a fairly good prognosis. If only the active rheumatic infection completely subsides, the latter group of children, including those with valvular damage but without enlargement, will not be seriously incapacitated. They can look forward to a normal life at least until fifty, when arteriosclerotic vascular changes may become superimposed and cause symptoms.

Summary

It can thus be seen that we are powerless to prevent rheumatic fever and the ensuing rheumatic carditis. All we can hope to do is to keep the cardiac damage minimal. This can be accomplished only by the ability to recognize the symptoms and signs of active rheumatic infection, which may differ materially from those occurring in the adult, and to insist upon absolute rest until all evidence of activity has subsided. It is only by attacking rheumatic heart disease at its source that we can prevent the crippling which in time too frequently occurs.

Acute Osteomyelitis in Children*

By WALTER P. BLOUNT, M. D.
Milwaukee

IF THIS meeting had been held twenty years ago instead of today, "Tuberculosis of the Bone in Children" would have appeared on the program in place of osteomyelitis. At that time tuberculosis was one of the chief causes of deformity. Due largely to recent preventive measures, bone and joint tuberculosis is somewhat on the decrease. It occupies a less important place than it did, while osteomyelitis has come into greater prominence.

Osteomyelitis is a singularly unfortunate disease to treat. "Once an osteomyelitis, always an osteomyelitis" is an old axiom which is still more or less true. It is often quite impossible to eradicate osteomyelitis once it is established. Hope in treatment lies not in curing it during the chronic stage, but in preventing it from becoming chronic. Preventive treatment has changed in the last few years.

Before my time, as Dr. Echols or Dr. Lettenberger could tell us, treatment consisted in heroic surgery and painful dressing. At that time, it was not uncommon for a surgeon to resect large portions of a bone because it was presumably infected. The more often the dressing was changed, the sooner the patient was supposed to recover. This was the treatment until about the time of the war. Then it gradually changed through the influence of the army surgeons who were forced to handle large numbers of dressings. The doctrine of drainage and rest gained foothold. The principle was to afford proper drainage and then put the part absolutely at rest. "Saucerization" was done in the chronic but not in the acute stage. From this wise dictum the pendulum has swung too far toward conservatism. In periodicals one may now read that one should do nothing; let an abscess alone to rupture spontaneously. That is not good sense. We know the pus should be allowed an exit. But in combating this tendency to overemphasize caution, we must not overlook the fundamentals of pathology. It is with these that I want to concern myself.

Fundamentals of Pathology

There are two types of osteomyelitis in children.

(a) Primary hematogenous osteomyelitis associated with bacteremia.
(b) Secondary osteomyelitis following injury.

If a bone is protruding from a wound after an accident and dirt is ground into the wound, a bone infection is probable. Due to efforts of the American College of Surgeons and the Red Cross in the general education of the public, first-aid groups are being established and first-aid stations placed at appropriate points. We hope that serious bone infections will be less frequent. They are usually easily controlled if the injury is promptly treated according to the correct principles.

The primary hematogenous type is more prevalent and is disastrous in children. In order to discuss the treatment and other phases, I think it will be well to review the disease. Hematogenous osteomyelitis is caused by septic emboli in the blood stream. It affects the metaphysis, that portion of the bone just toward the middle of the bone from the epiphysis. At this portion, the nutrient artery branches into smaller arterioles and these into capillaries. These terminate in thin-walled sinuses which are very susceptible to infection. In the first place the current of the blood stream is very slow due to the large crossectional area. The arterial blood moves slowly and the bacteria are allowed to lie in contact with the walls of the sinuses. The lining cells are good food for bacteria and when bacteria lodge there, they are very apt to grow. If an abscess once starts, the environment is ideal for the rapid growth and destruction of bone. The abscess is contained in an inelastic bony shell. With the inflammation there is a marked increase in

* Stenotype Report of an Address Illustrated by Lantern Slides.

pressure and further circulation is cut off. Cutting off circulation produces more necrosis and the infection spreads rapidly. Pus is forced through the haversian canals and under the periosteum. It raises this covering of the bone, spreads along the shaft and some penetrates into new canals and kills a large amount of bone.

Here we must differentiate between the disease in babies and in older children. In infants under two years, the cortex is thin and the periosteum is more easily ruptured so that an abscess does not generate such pressure. If the bone is extensively destroyed, reparation is very rapid. Babies are brought in at the end of a day or two; older children even longer after the onset because of the slower development of alarming symptoms. When the abscess has once formed, there is a local spot of tenderness, a high septic fever and marked prostration. I have never seen a child with virulent acute osteomyelitis that was not acutely ill. Disturbed function is shown by flexion at the nearest joint. With these symptoms we have tenderness. If the lesion is at the lower femoral metaphysis, the tenderness will be there. If it is at the upper end of the tibia the tenderness will be just distal to the epiphyseal line. With this symptoms of tenderness, we have septic temperature, polymorphonuclear leukocytosis and swelling. Later there may even be redness. When pus has begun to form, it will rapidly strip up the periosteum until a large segment of healthy bone is exposed and destroyed. We do not know for several weeks how much bone has been destroyed. In infants a large portion which has been denuded of periosteum will live.

Diagnosis—Treatment

The diagnosis should be made early and the proper treatment instituted at once. This treatment should vary according to the age of the patient. In a baby, drain the soft tissue abscess. In two or three days, sometimes less, from the time the first symptom was noted, the pus will rupture through the thin periosteum. There is no need of hurrying with operative treatment until this point is reached. Something should be done, however, and that is the support of the general condition of the child. The nursing care, the feeding. etc., are very, very important. The baby should get plenty of fluid, if not by mouth, by some other route. After the abscess is formed is time enough for the incision in small babies.

In older children it takes a little longer for the abscess to form because the cortex is more dense. Here there is danger of constant feeding of the blood stream by emboli being forced back into circulation. It seems wise to drain these cases earlier. Any removal of bone in children should be to afford drainage, not to remove bone that is expected to die. In adults it is very often necessary to make a window in the medullary canal. On only a few occasions have I entered and found pus in the medullary canal of a child when it was not already under the periosteum.

A girl eleven years of age came to the hospital with an acute osteomyelitis of the lower end of the femur. She had tenderness, fever, and leukocytosis. An operation was performed at once. Pus was obtained under the periosteum but it was thought wise to remove a small piece of bone. No harm was done but probably no good either. A vaseline pack was inserted and a cast applied. There has been no stripping of the periosteum and no extensive destruction of bone. In other words, the condition was seen in time and properly treated by drainage and rest. Three or four years later the girl could not tell which leg had been operated on except by the scar.

If the subperiosteal abscess is not drained early, the pus works along the bone until a large portion of it is killed. The pus finally ruptures through the periosteum and the skin leaving a sinus. New bone is deposited under the periosteum to form an involucrum. Then one should wait until the new bone can bear the weight of the child before any surgery of a radical nature is performed.

Another child came in with pain in the shoulder. Osteomyelitis was thought of although the symptoms were fairly mild. A roentgenogram was taken and was found to be negative. I stress this point because x-ray examination is valueless in the early diagnosis of acute osteomyelitis. X-ray ex-

amination will rule out osteomyelitis of long-standing, of course. The child was sent home and told to put on hot compresses. He was not seen again until two years had elasped. The abscess had ruptured spontaneously. The involucrum had formed over the dense bone of the sequestrum. At this stage it was safe to saucerize the bone, removing what was dead and leaving a clean surface. The wound was packed with vaseline and a cast applied. So far as I know, there has been no recurrence.

Recurrence is not uncommon. Germs lie dormant in the bone, and as soon as the child catches cold or gets run down they gain the ascendency and another infection results.

In a third case, a child came in a week after the onset. The abscess had ruptured through and drained near the ankle. Perhaps if a surgeon had been available, the pus could better have been let out. A large incision was made and a large portion of the bone removed. The operator then poured phenol into the cavity to "kill the germs." It could not, of course, reach all of the bacteria, but it did destroy a great deal of good bone. After this it was necessary to keep the child in a cast for a long time because of a pathological fracture. The epiphysis was destroyed on the medial side but continued to grow on the lateral. The fibula grew around the corner giving rise to a considerable deformity. The curve was later straightened out, but there was an inch of shortening which could not be corrected.

An example of deformity complicating osteomyelitis illustrates also a point in diagnosis. A fourth child was seen by a physician who diagnosed the trouble as articular rheumatism. A roentgenogram was taken which was negative. It would have been better not to take a roentgenogram because it gave the people a feeling of false security. The symptoms became less characteristic and ten days later a second plate was taken. This showed a well-developed osteomyelitis of the fibula on one side and the tibia on the other. The orthopedic surgeon incised the abscess, drained the pus and did nothing to the bones. In spite of this there was considerable extension. The surgery was done too late. In spite of the extent, a great deal of bone has not been destroyed. If a diaphysectomy had been performed, this good bone would have been destroyed. The sequestrum was later removed by radical operation and saucerization. There was no recurrence but there was one interesting complication. The fibula is well restored although it is thicker. By actual measurement, one tibia is an inch longer than the other. The growth was due to the stimulation of infection, the blood supply being greater. We have followed this phenomenon closely in various types of cases. Anything causing a hyperemia causes increased growth.

About eight years ago a fifth child, a boy, was in the hospital acutely ill with an osteomyelitis of the fibula. They thought he was going to die and did not pay any attention to the angulation of the hip on one side. They should have known by the clinical examination what was wrong. Before they took a roentgenogram, the hip had been dislocated for some time and it was too late to reduce it. A pathological dislocation is a serious thing. The capsule becomes distended with pus and the muscle pull is enough to force the head out of the socket. Even when the pus absorbs or the abscess has been incised the head does not return spontaneously. The rule should be to use traction when in doubt. If traction had been applied in this case, there would not have been this bad result three years later. Radical surgery was required later to enable him to walk even fairly well. If traction had been applied, it would have been a better hip. Here was an oversight in the treatment in the acute stage.

Sometimes a septic hip starts with primary involvement of the synovia of the hip joint. I think more often the involvement of the joint is a result of a septic focus in the upper end of the femur. When it ruptures through the cortex it enters directly into the hip joint. Usually involvement of the joints is not recognized before the first, second or third day. Hips distended by pus should be drained. By early drainage one removes the destructive agent, the same principle as in osteomyelitis.

A little girl six years of age had multiple lesions. It was almost a month after the onset of the symptoms before a roentgenogram

was taken. The hip had been involved at least two weeks. The cartilage was already destroyed. I believe the lesion started in the metaphysis. The bone was destroyed and the abscess ruptured into the joint. The septic arthritis was drained. In spite of this, the destructive process went on to destroy the hip. The dead head formed a sequestrum. We put on traction. Someone else removed the traction. At the end of a month we had not a dislocation but a pathological fracture. Fortunately, the condition was recognized immediately and with light anesthesia the displacement was reduced. The neck was pulled down and closely applied to the head. This was done because we know that even if it is stiff, a stable hip is better than a dislocated one.

Perthes' Disease

We have been discussing osteomyelitis of a pyogenic type. Tuberculous osteomyelitis produces a different picture. The end result in a typical case is principally rarefaction. The symptoms are usually much slower to develop. Once in a while the onset is very acute. There should be an examination and a careful history to rule out osteomyelitis of a less virulent type. In this connection, I think it would be well to mention a condition which I think is well termed an osteochondrosis or coxa plana. It is called Perthes' disease here; Legg's disease in the East. The ultimate deformity is usually not great. There is a difference in the diagnosis and treatment. It has a counterpart in osteochondrosis of the outer side of the epiphysis, adolescent coxa vara which is an osteochondrosis of the neck of the femur. If it is not properly treated, there is often a complete displacement of the head, just as in a septic process of a more acute nature.

It is too bad that I have shown so many roentgenograms in the course of my remarks. I may leave you with the idea that they have something to do with the diagnosis of acute osteomyelitis. If the roentgenogram is positive, it is too late to do anything of great value. If it is negative, it does not help at all. I would make a plea for *early clinical diagnosis* and immediate institution of the proper treatment.

In babies the operative treatment is not so urgent. Treat the baby and wait for surgery until the ideal time, when the abscess is localized. The operation then is simple, merely incision for drainage. In older children a subperiosteal abscess should be drained as soon as possible to prevent complications; notably, metastases to other parts of the body, feeding the septicemia, and local destruction of bone.

Fractures of the Elbow in Children*

By IRWIN SCHULZ, M. D.
Milwaukee

FRACTURES of the elbow joint in children are so varied and of so many types that a complete discussion of each would be too lengthy. Fractures involving the lower end of the humerus are the most important from the standpoint of frequency of occurrence and complications. In our experience at the Milwaukee Children's Hospital these fractures and Volkmann's ischemic myositis have evoked most of our interest.

The lower end of the humerus has four centers of ossification (the capitellum, internal epicondyle, lateral condyle and trochlea). The development of these centers of ossification controls the articular surface of the lower end of the humerus. One can readily see how fractures which involve one or more of these epiphyses may disturb the normal development of the articular surface, and result in a deformed elbow joint and often in limitation of motion. This is produced not only by abnormal position of these epiphyses, but also by disturbed circulation, which, in turn, if not prevented, results in death or delayed growth of the involved epiphyses. At about six years of age only the capitellum and internal epicondyle throw a shadow. The rest is cartilaginous.

* From the "Fracture Service," Milwaukee Children's Hospital.

X-ray examination may be confusing, in that the fractured fragment is really larger than appears and the centers of ossification, which are not continuous with the shaft, may be confused with fracture. If possible, it is always well to compare an x-ray picture of the good elbow with one of the injured elbow.

The types of fracture which may involve the lower humerus cannot be discussed together as they are not treated in the same manner. Each presents a distinct problem. Supracondylar and dicondylar fractures occur most frequently. Fracture of the external condyle with the capitellum is rather common and is important. This injury is often dismissed as a sprain of the elbow unless an x-ray examination is made. If not reduced early and accurately it will result in death or disturbed growth of the epiphyses. As a result, as the child grows, the elbow develops a deformity, most commonly an increase in the carrying angle which is followed in later years by a painful, weak joint, and at times with a progressive ulnar nerve palsy. If reduction cannot be obtained by closed manipulation, open reduction must be resorted to. This should be done within five days of the injury. Consistently good results are obtained by early open reduction.

Avulsion of the internal epicondyle occurs frequently and may be associated with ulnar nerve injury. Here, accurate reposition is as essential as with the other epiphyses. If there is gross displacement or the fragment lies in the joint or the nerve is involved, open reduction must be performed. If the fragment is small it may be removed.

The external deformity in a typical extension type of supracondylar fracture is that of a dislocation, except that the contour of the joint with the relation of its three fixed points (tips of external and internal condyles and olecranon) remains normal. As a rule there is considerable discoloration and swelling.

The displacement of fragments is characteristic. The lower fragment is displaced posteriorly and, as a rule, laterally. The line of fracture runs obliquely downward and foreward. The sharp end of the upper fragment, being forced into the cubital fossa, may produce tremendous damage to muscles, nerves and veins. This soft tissue injury is responsible for such complications as Volkmann's ischemic contracture and nerve palsy. It is for this reason that supracondylar fracture should be treated as a surgical emergency. Furthermore, if treated soon after injury, reduction is easier, is more easily maintained, and, in the absence of gross injury to large vessels, the swelling associated with this fracture begins to subside as soon as reduction is completed.

Before any attempt at reduction is made, the physician should, for his own protection, examine the patient for evidence of nerve injury. If possible an x-ray picture should be taken to determine the type of injury and position of fragments. Often more harm than good is done by manipulation without knowing the type of injury.

Reduction should be done under anesthesia and, if possible, under the fluoroscope. Manipulation at all times should be gentle. Great force as a rule is not necessary.

To reduce the common extension type of supracondylar fracture the following procedure is used: (1) Traction is exerted on the forearm, bringing the arm to hyperextension and supination. (2) Pressure is then exerted on the distal fragment behind the elbow, forcing this fragment downward so as to lock it with the upper fragment, correcting for lateral displacement at the same time. Reduction of the fracture at this point is almost completed. (3) Continuing traction and pressure on the lower fragment, the elbow is gently flexed, bringing the supinated forearm directly over the upper arm. The broadening of the triceps tendon holds the fragments in position.

The degree of flexion to be maintained depends solely on the degree of swelling at the elbow. The greater the swelling the less acute the angle. In many cases cyanosis of the hand will develop if flexion is too acute. As a rule an angle of 45 degrees at the elbow will suffice. The arm is maintained in this position with Jones' collar and cuff. The elbow should never be flexed until the fracture is reduced, for flexion does not reduce the fracture.

These patients should be observed closely for from forty-eight to seventy-two hours. It is our practice at the Children's Hospital to hospitalize these patients at least forty-eight hours and give explicit instructions to nurses and house physicians to observe for signs of interference of circulation and Volkmann's ischemia. It is well to explain to parents at this time the possible complications which may arise, what is being done and what may have to be done to prevent them.

If all goes well flexion is maintained for about fourteen days at which time the arm is gradually brought down. At twenty-one days the arm may be worn in a sling and active motion may be allowed. At no time should vigorous passive motion, baking or massage be given. Children will voluntarily increase the range of motion as the tissues allow. Depending on the severity of the injury, the sling is worn to about the fourth or fifth week after injury.

The flexion or reversed type of supracondylar fracture is very rare. In this type the distal fragment is displaced anteriorly. Reduction is obtained by traction with the arm held flexed, and is maintained with the arm partly extended and in a posterior molded cast. This type is mentioned to demonstrate the point that one common method cannot be applied to all fractures of the elbow.

Fracture of the olecranon usually takes care of itself. Open reduction is never necessary. In children the elbow can be immobilized in extension without fear of developing limitation of motion.

Fracture of the head and neck of the radius should be treated conservatively. Where there is wide displacement open reduction should be done. Contrary to the accepted treatment in adults, the head of the radius should not be removed in children.

Complications

The common complications of elbow injuries are nerve injury, excessive callus, myositis ossificans, and Volkmann's ischemic contracture. The most serious complication of elbow fractures is Volkmann's ischemic contracture. It is a calamity. The early picture is called Volkmann's ischemic myositis. I wish to stress the name ischemic myositis or call it Volkmann's ischemic myositis, if you wish. At any rate, it is in the ischemic and myositic stages that we can apply measures which will prevent the late contracture with its ugly "clawhand" appearance.

Ischemic myositis most commonly involves the flexor muscles of the forearm and is due to almost complete loss of circulation of blood or an ischemia in these muscles. As a result, the muscle cells degenerate. Following this the dead cells are replaced by scar tissue which produces the contracture.

From an analysis of the deep structures at and below the cubital space, one can readily understand how the jagged end of the proximal fragment in a supracondylar fracture, being jammed into this area, will tear the veins and produce a massive hemorrhage.

A cross section of the upper part of the forearm shows the construction in this area of the closed fascial spaces in which the muscles lie. With many veins in the upper forearm torn and bleeding, with the arteries continuing to pump in blood which cannot be carried away, and the remaining veins collapsed by pressure of the hematoma, tremendous pressure develops within these unyielding fascial spaces. If the pressure of bandages and splints is added to this an almost complete anoxemia or ischemia occurs. This may develop within two to four hours after injury.

The clinical picture in this ischemic state is characteristic. In spite of complete reduction, the patient complains bitterly of pain in the upper forearm and elbow which is aggravated by attempted motion of the fingers. Examination at this stage reveals a tense, swollen forearm with swelling extending to the fingers. The skin is cyanotic and cold, with lividity of the hand and fingers and inability to move the fingers. The radial pulse may be absent or diminished; this is not a significant finding. There is at times numbness of the hand.

This is the opportune time to stop the progress of this complication and prevent the development of permanent damage. If the condition is not relieved within a few hours

(Continued on page 954)

THE WISCONSIN MEDICAL JOURNAL

The Council on Scientific Work

W. S. MIDDLETON, Madison, Chairman EBEN J. CAREY, Milwaukee H. A. Sincock, Superior
J. A. EVANS, La Crosse G. W. KRAHN, Oconto Falls

Editorial Staff

MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

H. P. BOWEN---------Watertown
FRANK W. POPE----------Racine
JOSEPH DEAN----------Madison
B. I. PIPPIN------Richland Center
A. H. HEIDNER-------West Bend
S. E. GAVIN---------Fond du Lac
H. A. JEGI----------Galesville
G. R. DUER----------Marinette
J. W. LAMBERT----------Antigo
JOSEPH F. SMITH--------Wausau
F. E. BUTLER---------Menomonie
F. G. JOHNSON--------Iron River
JOS. LETTENBERGER-Milwaukee

Annual Subscription--------Three Dollars-Fifty Cents Single Copies--------Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI NOVEMBER, 1937 Number 11

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

Sulfanilamide in the Treatment of Gonorrhea and Other Infections of the Urinary Tract

A SHORT time ago, in these columns, we called attention to the beneficial effect of sulfanilamide in the treatment of infections due to the hemolytic streptococcus. In this article we mentioned the possibility of the use of sulfanilamide in the treatment of gonorrheal and other infections of the urinary tract.

Since that time there has accumulated in the literature several reports indicating that this drug is of distinct value in the treatment of these conditions. In the same articles, the writers have been very careful to point out the dangers attendant on the use of this drug.

Dees and Colston[1] employed the drug in the treatment of 47 cases of gonorrheal urethritis,—cases including acute, subacute and chronic, anterior and posterior urethritis, and some cases with associated complications. In these cases, no other treatment, local or general, was employed. In 36 of the cases, the gonococci and urethral discharge disappeared in less than five days. In five cases, the subjective symptoms disappeared completely with diminution in amount of the urethral discharge, but the gonococci still were demonstrable in the smears. In three cases, there was no response to the use of the drug and the symptoms persisted. In three cases, there was immediate response to the use of the drug but when it was discontinued, there was a recurrence of the discharge. In two of these cases, however, the infection subsided following a second course of the drug. They felt that one of the most satisfactory responses to the use of the drug was that in no instance did they note a progression of the infection, even in those cases which showed no clinical response to its use.

Dees and Colston employed approximately 80 grains in four divided doses daily for two days, 60 grains daily for three days, and 40 grains daily for from four to eight days. In a few cases in which the writer has employed this drug in dosages as suggested by Dees and Colston, the patients were unable to take the large dosage prescribed without having marked nausea, lassitude, etc.; in other words, they could not remain ambulatory. At a recent medical meeting, the writer heard several men report their experiences in employing similar dosages and it was the

concensus of opinion that in employing such dosages, the patients should be hospitalized.

Reuter is enthusiastic about results obtained in the treatment of 100 cases of gonorrheal urethritis and reports a 90 per cent clinical cure in five days. Reuter employed 40 grains of the drug daily, 10 grains after each meal and 10 grains at bedtime. The treatment was continued until there was an absence of symptoms and discharge from the urethra was microscopically free of pus. His cases reported as cured had been symptom-free for periods ranging from two weeks to four months.

Reuter obtained his best results in the treatment of acute cases. He states that no case was made worse by the employment of the drug. Herrold, in a recent discussion of this subject, found, contrary to Reuter's experience, that the older cases responded better than did the acute cases. He felt that the drug should be administered in moderate doses so that the patient would develop his natural immunity response. The writer observed one case recently where a profuse discharge subsided in 24 hours following the administration of 80 grains of the drug. Due to the untoward effect of the drug, the dosage had to be reduced, whereupon the discharge promptly returned.

However, clinical experience has demonstarted that the drug is of decided therapeutic value in the treatment of gonorrheal urethritis and most writers who have employed it point out that aside from untoward effects of the drug such as nausea, lassitude, and the other and more serious possible unfavorable reactions, it is dangerous in that it may be employed indiscriminately and since it can be bought at any drug store may be employed by patients who are not under a physician's supervision.

In the treatment of other infections of the urinary tract an accumulation of experience has shown that the drug is of decided benefit in the treatment of certain types of infection.

Cook and Buchtel[2] report their observations after six months of using the drug. At first they employed it in small doses and the results were not encouraging. When larger doses were employed in 90 per cent of their uncomplicated cases of bacilluria due to the colon bacillus, Bacillus aerogenes, and others of this group, the urine was rendered negative to culture. They found that acidity of the urine was evidently not necessary when using sulfanilamide and felt that this would be of value in the treatment of cases where infection was due to urea-splitting organisms in which cases the urine is practically always highly alkalin.

The author refers only to those preparations approved by the Council on Pharmacy and Chemistry of the American Medical Association.

Helmholz and Osterberg[3] found the drug of decided value in the treatment of urinary tract infections of children and that doses from 15 to 25 grains per day are well-tolerated by children aged from three to six.

Here, again, the drug must be employed with careful supervision and with all of the usual attention to other details necessary in the management of these cases. G.H.E.

REFERENCES

1. Dees, John E., and Colston, J. A. C.: The Use of Sulfanilamide in Gonococcic Infections. J.A.M.A., 108, 1855-1858. May 29, 1937.
2. Cook, E. N., & Buchtel, H. A.: The Use of Sulfanilamide (Prontylin) in Urinary Infections. Proc. of Staff Meetings of the Mayo Clinic. Vol. 12, No. 24, p. 381-383. (June 16) 1937.
3. Helmholz, H. F., and Osterberg, A. E.: Rate of Excretion and Bactericidal Power of Sulfanilamide (Prontylin) in the Urine. Proc. of Staff Meetings, Mayo Clinic, Vol. 12, No. 24, p. 377-381, (June 16) 1937.

SUGGESTIONS DESIRED

The Council on Scientific Work, in charge of annual meeting programs, will appreciate suggestions from members concerning the program for 1938. Particularly desired are frank comments on those features of the 1937 meeting which, to the opinion of the membership, could be changed or rearranged advantageously.

Please address letters to Dr. W. S. Middleton, The Medical School, The University of Wisconsin, Madison, who is chairman of the Council on Scientific Work.

. . . . THE PRESIDENT'S PAGE . . . .

Why a Special Assessment?

THE late "Biemiller Program" stood still fresh in the minds of those whom you had sent to serve you in the regular session of the House of Delegates recently held in Milwaukee. Those elected to manage the affairs of your Society, while heartily encouraged by our recent success in the legislature at Madison, were keen in their concept that this first brush with the enemy was not the end but rather the beginning of a conflict steadily forming.

Now that the smoke of battle has cleared and there is a lull in which to think and plan, shall we not examine carefully and critically the position that we have taken? Entirely apart from its strategic import as we face the next legislature, it is a clear responsibility of our organization to leave no stone unturned in our search for the truth concerning the many aspects of sickness care made notable by the proposed program. Are we certain, for example, that there are not geographic areas or income groups in our State whose sickness care is inadequate? Are we correct in our belief that there is nothing of worth in the several forms of medical care presently operating under state control in the Old World? Are we sure that we should continue adamant against hospital insurance? To an answer to these several questions the House of Delegates recently addressed itself. After thoughtful consideration it determined upon a fourfold plan intended to disclose beyond peradventure the real truth concerning these several questions.

First, it directed that a thorough and sympathetic study of the whole subject of hospital insurance be made. To this end it authorized the appointment of a special mixed committee to be composed of physicians from among our membership together with leaders in the several phases of hospital management outside the profession.*

It is intended that this special committee undertake a thorough review of the growing mass of experience in all forms of hospital insurance; that it hear and consider the thoughts of those especially informed on the subject; and that it review the entire field of hospital management here in Wisconsin with reference to the possible need for such a program.

Second, it authorized as part of this plan of study, the employment of special actuarial and legal counsel to develop a sound factual basis upon which the work of this special committee might be built. The element of risk involved remains one of the great imponderables of present day hospital insurance. Costly and time-consuming though it be, your House of Delegates wisely determined that precise knowledge in this one matter is basic to all other aspects of this interesting and tempting innovation.

Third, the House of Delegates directed a searching investigation concerning the adequacy of sickness care throughout Wisconsin. To this end it authorized the appointment of a second special committee composed entirely of physicians within our Society whose experience and background make them peculiarly fitted to this all-important task.** It is intended that this committee shall hold hearings at various key centers throughout the State at which, by prearrangement, it will receive and consider the complaints, opinions, and recommendations of all of those within that community who are at all familiar with the broad subject of sickness care. Such a hearing would include leading physicians both rural and urban, the local health officer, heads of relief agencies, hospital executives, political leaders, representatives of industry and of labor; in fact, everyone intelligently interested in those who are sick. It is felt that this committee, through its extensive research,

contacts, and travels throughout the State, might return to our Society and with authority say whether or not the sick of our State actually are receiving adequate care. If inadequacies do exist, they will be uncovered and drawn sharply to the attention of our Society. On the contrary, if this committee determines that sickness care in Wisconsin is adequate, readily available, and of high standard, it will silence once and for all the carping criticism heard now so frequently and with such seeming authority.

Fourth, and finally, the House of Delegates decided to send our secretary to Europe that he might make a critical first-hand study of the several distinctive forms of sickness care presently operating there under management and control of the state. The force of a heavily endowed propaganda has clouded badly the whole subject of state medicine. With the spearhead of this powerful social reform pointed directly at our State, it behooves us to seek out the exact truth, not alone to guide us in determining our own position but also in order to be able to speak with authority when next issue appears in our legislative halls. Certainly there is none among us better prepared to undertake so important a study. Neither could we imagine a more effective method of preparing our case for the battle that is bound to recur with increasing force in the coming legislature.

These, then, combine to form the special program recently adopted by your House of Delegates as its effort to survey and, if possible, improve the standard and adequacy of sickness care here in Wisconsin. It is an ambitious program; one destined to project its effects far into the future. It is an expensive program; unavoidably so if it is to be carried out with the care and detail it deserves. In entering upon it your delegates were thoroughly mindful of the dwindling financial reserves of our Society. They understood fully the probable future need for all that remains of that reserve in continuing the extraordinary Society activities made necessary by the unusual press of legislative affairs. Having these in mind, it developed as their considered judgment that an assessment of $10 be levied upon each active member, hoping that the additional funds so obtained would see us through this special program of investigation, study, and planning for the ultimate welfare of the sick of our State.

It must be recalled in this connection that the funds of our parent organization are not available in subsidy of any project of a state society, however much that project may interest the profession of the country as a whole.

As the drive to socialize the care of sick here in America takes shape it becomes increasingly apparent that Wisconsin is to be given the doubtful honor of being singled out as a likely place in which a first foothold might posibly be gained. The choice was not ours. We could not divert the beginnings of the movement. We have succeeded, however, in putting a temporary stop to its progress and now we find ourselves blessed with time for careful research and reflection. *The months to come must be spent in an earnest and sympathetic review of the entire subject of proposed social and economic change in medical practice. Where the certain promise of good is found, there we must go. Where the promise for good is chimerical and unproven, however, we are driven by humanity's sake to resist. Whatever our position, we must be both open-minded and fully informed. If judgment leads us to a program of cautious resistance, that resistance must rely for success upon the force of constructive thinking; if we are to stand in absolute denial we must depend upon the power of genuine facts. To such a program, by action of your delegates assembled, our organization now stands fully committed.*

James C. Sargent

(See next page for committee appointments.)

* THE SPECIAL COMMITTEE TO STUDY HOSPITAL INSURANCE

Dr. S. J. Seeger, Milwaukee, chairman.
Chief of staff of Columbia Hospital and Milwaukee Children's Hospital; M. D. Northwestern University, Chicago, and M. S. Marquette University, Milwaukee; member of Medical Society of Milwaukee County, State Medical Society of Wisconsin, American Medical Association, American College of Surgeons, and Western Surgical Association; former president of Medical Society of Milwaukee County, State Medical Society of Wisconsin, and Alumni Association of Mayo Foundation.

Mr. J. G. Crownhart, Madison, secretary.
Secretary of State Medical Society of Wisconsin, 1923–; secretary of Wisconsin Hospital Association, 1930–; managing editor of Wisconsin Medical Journal, 1923–; member of Governor's Committee on Public Welfare, 1936–1937.

Dr. S. E. Gavin, Fond du Lac.
Chairman of Council of State Medical Society of Wisconsin; councilor of sixth district since 1931; former president of Fond du Lac County Medical Society and delegate to State Medical Society of Wisconsin; M. D. Rush Medical School, Chicago; member Fond du Lac County Medical Society, State Medical Society of Wisconsin, American Medical Association, and American College of Surgeons.

Dr. R. G. Arveson, Frederic.
Owner of Frederic Hospital and mayor of Frederic for thirteen years; alternate delegate to American Medical Association; M. D. Wisconsin College of Physicians and Surgeons, Milwaukee; member of Polk County Medical Society, State Medical Society of Wisconsin, and American Medical Association; lieutenant, U. S. Navy, 1917–1920.

Dr. E. L. Tharinger, Milwaukee
Professor of pathology at Marquette Dental School and pathologist at St. Luke's and Misericordia Hospitals, Milwaukee; M. D. Marquette University, Milwaukee; member Medical Society of Milwaukee County, State Medical Society of Wisconsin, American Medical Association, Milwaukee Academy of Medicine, and American Society of Clinical Pathologists.

Dr. A. H. Heidner, West Bend.
Councilor of sixth district of State Medical Society of Wisconsin; B. S. University of Wisconsin, Madison, and M. D. Rush Medical College, Chicago; member Washington–Ozaukee County Medical Society, State Medical Society of Wisconsin, and American Medical Association.

Sister Mary Bernadette, Madison.
Superintendent of St. Mary's Hospital, Madison; Ph. R. Missouri and Wisconsin; retiring president of Wisconsin Conference of the Catholic Hospital Association; former superintendent of St. Joseph's Hospital, St. Charles, Missouri, and St. Mary's Hospital, St. Louis, Missouri; member of Committee on Law and Legislation, Wisconsin Conference of the Catholic Hospital Association; member of Nurses Registry Committee, and director of Wisconsin Conference of Catholic Hospital Association.

Rev. H. L. Fritschel, Milwaukee.
Administrator of Milwaukee Hospital, president of Board of Lutheran Deaconess Motherhouse at Milwaukee, and president of Milwaukee Council of Hospitals; member of College of Hospital Administrators; member of Protestant Hospital Association and American Hospital Association; president of Protestant Hospital Association; vice-president of College of Hospital Administrators; member of Committee on Nursing Education, 1937–.

Mrs. C. D. Partridge, R. N., Cudahy.
Graduate of Grace Hospital, Detroit; former superintendent of Bronson Hospital, Kalamazoo, Michigan, 1912–1916; supervisor of Mercy Hospital, Chicago, 1916–1917; member of board of directors of Michigan State Nurses' Association, 1914–1916; secretary of eighth district of Wisconsin State Nurses' Association, 1920–1922; member of board of directors of Wisconsin State Nurses' Association, 1920–1923; secretary of Wisconsin State Nurses' Association, 1924–1936, and executive secretary, 1936–; editor of Wisconsin State Nurses Bulletin, 1933–; and chairman of Committee on Nursing Information.

Mr. C. I. Wollan, La Crosse.
B. A. Luther College, Decorah, Iowa, 1911; educator 1911–1919; mercantile business, 1919–1924; manager of La Crosse Lutheran Hospital, 1924–; lieutenant governor of western division of Kiwanis Clubs of Wisconsin and upper Michigan, 1936; member of Committee for Hospital Construction with American Protestant Association; president of La Crosse Parent Teachers Association; member of Wisconsin Hospital Association, Protestant Hospital Association, and American Hospital Association.

** SPECIAL COMMITTEE TO STUDY DISTRIBUTION OF SICKNESS CARE IN WISCONSIN

Dr. R. G. Arveson, Frederic, chairman.
Owner of Frederic Hospital and mayor of Frederic for thirteen years; alternate delegate to American Medical Association; M. D. Wisconsin College of Physicians and Surgeons, Milwaukee; member of Polk County Medical Society, State Medical Society of Wisconsin, and American Medical Association; lieutenant, U. S. Navy, 1917–1920.

Dr. H. J. Gramling, Milwaukee.
Secretary of State Board of Medical Examiners; speaker of House of Delegates, State Medical Society of Wisconsin; former president of Medical Society of Milwaukee County; chief of staff

of St. Luke's Hospital for five years; clinical professor of surgery of Marquette University School of Medicine for ten years; chairman of infant mortality reduction campaign, 1903; M. D. St. Louis College of Physicians and Surgeons; member of Milwaukee Academy of Medicine; medical director and former president of Catholic Family Protective Association; member of Medical Society of Milwaukee County, State Medical Society of Wisconsin, and American Medical Association.

Dr. J. Newton Sisk, Madison.
Radiologist of Jackson Clinic and Methodist Hospital; medical director of Dane County Public Relief Agencies, 1932–; vice-speaker of House of Delegates, State Medical Society of Wisconsin; chairman of joint committee on school health, Madison; State project director, school health program, Civil Works Administration, 1934; president of village of Shorewood Hills, 1933–1935; M. D. Baylor University College of Medicine, Dallas; member of Dane County Medical Society, State Medical Society of Wisconsin, American Medical Association, and Radiological Society of North America.

Dr. R. W. Blumenthal, Milwaukee.
President of Medical Society of Milwaukee County, 1925; chairman of medical advisory committee for relief, Milwaukee, 1934–; editor Milwaukee Medical Times, 1936–; assistant division surgeon 32nd division; assistant chief surgeon, American army; councilor, State Medical Society of Wisconsin, 1924–1936; M. D. University of Illinois; former president of Milwaukee Academy of Medicine; member of Medical Society of Milwaukee County, State Medical Society of Wisconsin, American Medical Association, Milwaukee Academy of Medicine, and American College of Physicians.

Dr. H. H. Christofferson, Colby.
M. D. St. Louis University School of Medicine; practicing physician, Clark County, 1902–; physician to Clark County Asylum, 1921–; member of House of Delegates, State Medical Society of Wisconsin, 1929–; president of Colby school board, 1922–; member of Clark County board for ten years; member of Clark County Medical Society, State Medical Society of Wisconsin, American Medical Association, and State Board, Medical Examiners.

THE WOMAN'S AUXILIARY

(ORGANIZED 1929)

OFFICERS

Mrs. Oscar W. Friske, Beloit, President
Mrs. Robert E. Fitzgerald, Wauwatosa, President-elect
Mrs. Frank E. Brinckerhoff, Beloit, Secretary
Mrs. Arthur J. McCarey, Green Bay, Treasurer
Mrs. Harold E. Marsh, Madison, Parliamentarian

DIRECTORS

Mrs. Rock Sleyster, Wauwatosa
Mrs. F. Gregory Connell, Oshkosh
Mrs. Cornelius A. Harper, Madison

COMMITTEE CHAIRMEN

Archives and History—
Mrs. Edward C. Pfeifer, Racine
Hygeia—
Mrs. Earle E. Kidder, Stevens Point
Nominations—
Mrs. Fred Nause, Jr., Sheboygan
Organization—
Mrs. Eben J. Carey, Wauwatosa
Press and Publicity—
Mrs. George H. Ewell, Madison
Program—
Mrs. William T. Clark, Janesville
Public Relations—
Mrs. Raymond B. Dryer, Poynette

Press and Publicity

By MRS. GEORGE H. EWELL
Madison

Mrs. George H. Ewell, Madison, chairman of press and publicity of the Woman's Auxiliary to the State Medical Society of Wisconsin, has arranged for a series of articles from chairmen of various committees. The first of these, by Mrs. Ewell, follows.

IT HAS been stated that among the objects of the auxiliary are: Interpretation of the aims of the medical profession to other organizations interested in the promotion of health education; assisting in entertainment at medical meetings; encouraging friendliness among families of the medical profession and doing work approved by the advisory council.

How various county auxiliaries are striving to attain these objectives, I believe is of interest to all members and should serve as a stimulus to all groups.

The county auxiliary is the fundamental unit of our state organization. Information

concerning its activities is necessary to provide publicity material in order to create interest in the whole.

Therefore, it is necessary for the county press and publicity chairman to furnish me news of activities. As state press and publicity chairman, I forward this information to the national chairman.

Information furnished by the county chairman should be abundant, and not too brief. Any news about the auxiliary as a whole or its individual members which may seem commonplace to one group may furnish food for thought for another.

The State Medical Society very generously provides space for publication of this news in its Journal. We urge all of you to have your husbands provide you with the Journal so that you may read the activities of the various auxiliaries. News concerning the national and state organization is available in the organization section of the Journal of the American Medical Association.

Among other items which will appear in our auxiliary pages, I have planned to have special articles written by the various board members concerning their work and activities. These will appear from time to time.

In conclusion, the thought has occurred to me that the press and publicity chairman could present at your monthly meetings some of these news items, and a discussion of them may serve to promote and augment your activities.

Columbia—Marquette—Adams

The Woman's Auxiliary to the Columbia-Marquette-Adams County Medical Society met with the physicians on Tuesday, October 12. Preceding the business meeting a dinner dance was held in the Raulf Hotel, Portage. Mrs. Oscar Friske, president of the Woman's Auxiliary to the State Medical Society of Wisconsin, was the honored guest. The business meeting took place at the home of Dr. and Mrs. J. W. MacGregor of Portage, and the following were elected officers for the year 1937–1938.

President-elect—Mrs. H. M. Caldwell, Columbus.
Secretary—Mrs. C. J. Radl, Wisconsin Dells.
Treasurer—Mrs. J. P. Harkins, Portage.

Mrs. H. E. Gillette, Pardeeville, resigned as president for the ensuing year, and Mrs. J. M. MacGregor, Portage, was reelected to fill the vacancy. Bridge was played following adjournment of the business meeting.

Dane

The Woman's Auxiliary to the Dane County Medical Society met at the home of Mrs. Herbert Virgin on Wednesday, October 13, for a one o'clock luncheon. The assisting hostesses were Mrs. J. A. Hurlbut, Mrs. J. N. Sisk and Mrs. Walter Sullivan. Mrs. Robert Fitzgerald, president-elect of the Woman's Auxiliary to the State Medical Society of Wisconsin, was the guest at this first meeting of the season. A very interesting report of the recent auxiliary meeting in Milwaukee was given by Mrs. George Crownhart. The remainder of the afternoon was spent in playing bridge.

Milwaukee

A colorful and decorative "Autumn Luncheon" at the Young Women's Christian Association preceded the meeting of the Woman's Auxiliary to the Medical Society of Milwaukee County, held October 8, 1937, with Mrs. Eben J. Carey, presiding.

Mrs. Oscar Friske of Beloit, president of the Woman's Auxiliary to the State Medical Society of Wisconsin, extended greetings and spoke briefly of the ideals and aims of the Auxiliary.

Mrs. Ruth Perssion Lieberman, presented by Mrs. L. M. Warfield, music chairman, played two delightful violin solos.

Dr. Paul J. Mundie, head of the social science department of Marquette University, was then introduced by Mrs. Charles Fidler, program chairman, and gave a very interesting and thought-provoking talk on "Our Changing American Government."

The regular business meeting was called to order by Mrs. Eben J. Carey, president, and Mrs. N. Warren Bourne, membership chairman, announced the election of three new members as follows: Mrs. L. T. Peyton and Mrs. E. Ryan, active, and Mrs. M. J. Gallogly, associate. This brings the total membership in the Woman's Auxiliary to the Medical Society of Milwaukee County to 446.

Mrs. Carey called attention to the October, 1937, number of the Milwaukee Medical Times, wherein recognition is given editorially to the service rendered by the Auxiliary. The quotation, in full, follows:

> "Few exhibits at the Auditorium attracted greater crowds than that devoted to the doctors' hobbies. Credit for this exhibit goes to the Woman's Auxiliary to The Medical Society of Milwaukee County which did an immense amount of work in connection with it. Throughout the week members of the Auxiliary worked in relays, keeping careful watch over the treasures, most of them very valuable.
>
> "We again salute our Auxiliary as a splendid organization which has done and is doing a great deal for the medical profession and the people of this community."

Announcement was made of the monthly meetings of the volunteer sewing group in connection with the Visiting Nurses' Association, in which each

and every member of the Auxiliary is invited to participate.

An interesting program is planned for the November meeting, to be held Friday, November 12, and auxiliary members in the State who find it convenient to attend, will be warmly welcomed.

Portage

The Woman's Auxiliary to the Portage County Medical Society held its first meeting of the 1937-1938 season at the home of Mrs. A. G. Dunn. The serving of dessert and coffee at seven o'clock was followed by a business meeting. Mrs. F. Marrs was appointed as chairman of program and public relations, Mrs. D. S. Rice of Hygeia, and Mrs. D. D. Frawley of press and publicity. Mrs. A. G. Dunn was named president-elect, replacing Mrs. H. M. Coon. Plans for an open meeting to be held in November were discussed. The meeting closed with the reading of an article on malaria by Mrs. G. H. Lawrence.

Racine

Mrs. C. E. Constantine assumed her new duties as president of the Woman's Auxiliary to the Racine County Medical Society at a luncheon meeting held Tuesday, October 12, at the Hotel Racine. Mrs. W. E. Buckley is the president-elect, Mrs. R. W. McCracken the vice-president, Mrs. F. B. Marek the treasurer, and Mrs. Edmund Schacht the secretary.

Committee heads are as follows: Program, Mrs. W. E. Buckley, Mrs. Herbert Brehm; Hygeia, Mrs. I. N. Tucker, Mrs. Roland Schacht; history and archives, Mrs. E. C. Pfeifer, Mrs. I. E. Thompson; social, Mrs. L. E. Fazen, Mrs. C. F. Browne; public relations, Mrs. A. S. Pfeiffer, Mrs. G. L. Ross; publicity, Mrs. H. B. Keland, Mrs. George Walter; telephone, Mrs. Robert Thackeray, Mrs. T. C. Hemmingsen, Mrs. R. O. Peterson, Mrs. Ralph Spreng; membership, Mrs. R. D. Jamieson, Mrs. W. C. Roth; Girl Scouts, Mrs. A. S. Pfeiffer; parliamentarian, Mrs. F. C. Christensen.

Advisory board members are Mrs. J. F. Henken, Mrs. F. W. Pope and Mrs. C. K. Hahn.

Mrs. C. E. Constantine gave a report of the recent state convention.

Rock

The members of the Woman's Auxiliary to the Rock County Medical Society met on Tuesday evening, September 28, at the Hotel Hilton, Janesville. Mrs. Oscar Friske, Beloit, president of the Woman's Auxiliary to the State Medical Society of Wisconsin and also president of the Rock County Auxiliary, outlined the plans for the year. Mrs. W. T. Clark, Janesville, delegate to the state convention, gave a report of the annual meeting.

Winnebago

The following officers were elected on Monday, September 27, at the meeting of the Woman's Auxiliary to the Winnebago County Medical Society:

President—Mrs. E. B. Pfefferkorn, Oshkosh.
Vice-president—Mrs. R. H. Bitter, Oshkosh.
Secretary and treasurer—Mrs. H. W. Kleinschmidt, Oshkosh.

Society Proceedings

Columbia—Marquette—Adams

The Columbia–Marquette–Adams County Medical Society and its Auxiliary held a meeting at the Raulf Hotel, Portage, on October 12. After a dinner dance, Dr. H. M. Caldwell gave a report of the proceedings of the House of Delegates at its recent session. A motion was carried that the application of Dr. E. Doersch of Portage for membership in the society be accepted.

The following officers were elected:

Dr. H. E. Gillette, Pardeeville, president
Dr. L. V. McNamara, Montello, vice-president
Dr. C. J. Radl, Wisconsin Dells, secretary-treasurer
Dr. H. M. Caldwell, Columbus, delegate
Dr. W. H. Costello, Randolph, alternate
Dr. R. B. Dryer, Poynette, Dr. L. V. McNamara, Montello, Dr. H. Y. Fredrick, Westfield, censors

The president selected the following committees:

1. Medical Economics:
   Dr. J. W. MacGregor, Portage, chairman
   Dr. L. V. McNamara, Montello
   Dr. H. Y. Fredrick, Westfield
2. Auditing Committee:
   Dr. E. F. Tierney, Portage, chairman
   Dr. H. M. Caldwell, Columbus
   Dr. C. J. Radl, Wisconsin Dells

It was decided that the next meeting would be held at the Adams–Friendship Hospital, Adams, on November 9, and the Program Committee follows:

Dr. H. Shapiro, Adams, chairman
Dr. A. J. Harris, Friendship
Dr. G. F. Treadwell, Friendship

Crawford

The Crawford County Medical Society met at Gays Mills on September 28, at which time arrangements were made to complete the tests for school

children the last week in October. The annual meeting in November will be held at Prairie du Chien.

Dane

Members of the Dane County Medical Society met recently at the Madison Club, at which time Dr. Lindley V. Sprague was elected president of the Society to succeed Dr. Harry E. Purcell. Dr. Agnar Smedal, Stoughton, was elected vice-president, and Dr. J. S. Supernaw, Madison, was reelected secretary-treasurer.

Dr. J. Newton Sisk, delegate to the State Medical Society of Wisconsin, gave a report on the recent meeting in Milwaukee. Reports of standing committees were also read.

Eau Claire—Dunn—Pepin

After a 6:30 dinner at the Eau Claire Hotel on October 25 the members of the Eau Claire–Dunn–Pepin County Medical Society heard Dr. F. J. Hirschboeck of Duluth discuss "Cardiac Neurosis." This was followed by a paper, "Management of Pneumonia," by Dr. F. E. Schmidt of the Lederle Laboratories, Chicago, with showing of motion pictures demonstrating the most recent advances in treatment.

La Crosse

The La Crosse County Medical Society held the first of its fall meetings on October 12 at the Stoddard Hotel, La Crosse. Dr. Geza de Takats of the department of surgery of the University of Illinois spoke on "Peripheral Vascular Accidents," and Dr. Thomas Kinsella of the department of Surgery, University of Minnesota, spoke on "Application of Surgery to Tuberculous Pulmonary Diseases." The papers were well received and the attendance was good.

The following officers were elected for 1938:

President—Dr. W. E. Bannen, La Crosse.
Vice-president—Dr. Michael Ward, Bangor.
Secretary and treasurer—Dr. J. A. Roth, La Crosse.
Delegate—Dr. N. P. Anderson, La Crosse.
Alternate delegate—Dr. R. L. Eagan, La Crosse.
Board of Censors—Dr. Adolf Gundersen, Dr. F. A. Douglas, and Dr. D. S. MacArthur, all of La Crosse.

Langlade

The following officers were elected for the ensuing year at a meeting of the Langlade County Medical Society on October 20:

President—Dr. William P. Curran, Antigo
Vice-president—Dr. C. E. Zellmer, Antigo
Secretary-Treasurer—Dr. R. J. Portman, Antigo
Delegate—Dr. William P. Curran, Antigo
Alternate Delegate—Dr. L. A. Steffen, Antigo

Lincoln

A joint meeting of the Lions Club, the Merrill Commercial Club, and the Lincoln County Medical Society, sponsored by the Merrill Rotary Club, was held on September 23 in Merrill. Dr. W. B. Peck, managing director of the Interstate Postgraduate Medical Association of North America, was the guest speaker. The subject of his talk was "Business Opportunities in South America."

The meeting was held in the Badger Hotel, starting with a dinner at 6:30 o'clock.

Manitowoc

At the last meeting of the Manitowoc County Medical Society which was held on October 21, the following new officers were elected:

President—Dr. Arthur Teitgen, Manitowoc.
Vice-president—Dr. C. J. Skwor, Mishicot.
Secretary-treasurer—Dr. Theodore Teitgen, Manitowoc.
Delegate—Dr. E. C. Cary, Reedsville.
Alternate delegate—Dr. T. H. Rees, Manitowoc.

Milwaukee

The first fall meeting of the Medical Society of Milwaukee County was held on Friday, October 8, at the Milwaukee Athletic Club. The program follows:

"Bacterial Allergy"—Herman A. Heise, M. D.

"Obstetrical Anesthesia and Analgesia"—H. A. Cunningham, M. D.

"Toxemias of Late Pregnancy"—E. D. Plass, M. D., professor of obstetrics and gynecology, The State University of Iowa School of Medicine.

Monroe

At a recent meeting of the Monroe County Medical Society the following new officers were elected:

President—Dr. J. M. Scantleton, Sparta
Vice-president—Dr. T. J. Sheehy, Tomah
Secretary—Dr. D. C. Beebe, Sparta

Doctors Clayton J. Hyslop of Tomah, Hugh H. Williams, Jr. of Sparta, and J. S. Allen of Norwalk were admitted to the society as new members.

Oneida—Vilas

The Oneida–Vilas County Medical Society held a meeting at St. Mary's Hospital, Rhinelander, on October 7, at which time Dr. W. S. Bump, delegate to the State Medical Society of Wisconsin made his report, and the following officers for the society were elected for the following year: Dr. C. A. Richards, Rhinelander, president; Dr. O. R. McMurry, Eagle River, vice-president; Dr. L. F. Kaiser, Rhinelander, secretary-treasurer; Dr. W. S. Bump, Rhinelander, delegate; and Dr. I. E. Schiek, Rhinelander, alternate delegate.

Outagamie

There was a meeting of the Outagamie County Medical Society on Thursday, September 30, at the Hotel Northern, Appleton, with dinner at 6:30 p. m.

After a business meeting a report of the meeting of the State Medical Society in Milwaukee was given by Dr. Robert T. McCarty. This was followed by an address by the president-elect of the State Society, Dr. Albert E. Rector of Appleton.

Pierce—St. Croix

At the meeting of the Pierce–St. Croix County Medical Society in Hudson on October 21 the following officers were elected for 1938:

President—Dr. O. H. Epley, New Richmond.
Vice-president—Dr. Julius Blom, Woodville.
Secretary-treasurer—Dr. A. E. McMahon, Glenwood City.
Censor—Dr. J. W. Livingstone, Hudson.
Delegate—Dr. A. E. McMahon, Glenwood City.
Alternate delegate—Dr. R. U. Cairns, River Falls.

Dr. James Hoff of St. Paul, Minnesota, gave an illustrated lecture on the interpretation of electrocardiograms.

Portage

At the meeting of the Portage County Medical Society at the Hotel Whiting at Stevens Point on October 1, the following officers were elected:

President—Dr. E. E. Kidder, Stevens Point.
Vice-president—Dr. H. P. Benn, Stevens Point.
Secretary-treasurer—Dr. W. C. Sheehan, Stevens Point.
Censor—Dr. E. P. Crosby, Stevens Point.
Delegate—Dr. E. E. Kidder, Stevens Point.
Alternate delegate—Dr. A. G. Dunn, Stevens Point.

The delegate to the meeting of the State Medical Society gave a report on the actions of the House of Delegates. The incoming president made committee appointments including his selections for the new Committee on Medical Economics. They are Dr. Erich Wisiol, Stevens Point, chairman; Dr. G. W. Reis, Junction City; and Dr. V. A. Benn, Rosholt.

Rock

Dr. H. M. Richter, Northwestern University, was the guest speaker at the meeting of the Rock County Medical Society held September 28 at the Hotel Hilton in Janesville. Doctor Richter spoke on "Diagnosis and Surgery of the Gallbladder." A dinner opened the meeting at 6:30, at which about sixty members of the society were present.

Fifth District

A meeting of the Fifth District Medical Society was held on Thursday, October 14, at Two Rivers. Members were welcomed by Dr. Eugene Gates, Two Rivers, president, at the opening session at two o'clock. During the afternoon papers were read by the following physicians: Dr. E. M. Barker, Mayo Clinic, Rochester, Minnesota, "Hypertension"; Dr. David Cleveland, Milwaukee, "Spinal and Cerebral Injuries"; Dr. W. S. Middleton, dean of University of Wisconsin Medical School, "Newer Therapy of Lobar Pneumonia"; and Dr. Harry Smith, Mayo Clinic, Rochester, "Diagnosis and Treatment of Carotid Sinus Syncope."

Dr. James Sargent, Milwaukee, president of the State Medical Society of Wisconsin, was the principal speaker at the evening session. His address, "Our Society's Program for the Coming year," was given immediately following the 6:30 dinner in the banquet room of the Hamilton Community House.

Tenth District

The Tenth District Medical Society held its thirty-seventh annual conference at Eau Claire on September 30. The meeting was held at the Sacred Heart Hospital, and about ninety physicians were present. Dr. R. E. Mitchell was reelected president of the society and Dr. G. V. Scullard was elected secretary.

The cancer problem was the main topic of discussion. A clinic of cancer patients was conducted at the morning session by Dr. William A. O'Brien, associate professor of pathology at the University of Minnesota, and Dr. James A. Johnson, associate professor of surgery, also of Minnesota. In the afternoon Doctor O'Brien spoke on "Early Diagnosis and Treatment of Cancer"; Dr. William D. Stovall of Madison on "Prevention and Control of Cancer in Wisconsin"; Doctor Johnson on "Treatment of Late Stage Cancer"; and Dr. Joseph C. Baird of Eau Claire on "X-ray Therapy of Cancer."

A luncheon was served at Sacred Heart Hospital between the morning and afternoon sessions, and following the afternoon meeting dinner was served at Hillcrest Golf Club.

Milwaukee Academy of Medicine

Following a business session at their meeting on October 19, members of the Milwaukee Academy of Medicine heard several scientific addresses.

1. Comment on Two Cases of Neuritis, Dr. John L. Garvey.
2. Clinical Significance of Cardiac Arrythmias, Dr. Chester W. Long.
3. Allergic Aspects of Skin Diseases, Dr. Louis A. Brunsting, Department of Dermatology, Mayo Clinic.

Milwaukee Oto-Ophthalmic Society

The October meeting of the Milwaukee Oto-Ophthalmic Society was held at the University Club on Tuesday, October 5. Dinner at 6:30 p. m. was followed by the business and scientific program.

Business Program

1. Presentation of Articles of Incorporation.
2. Report of Economics Committee of visual tests in schools.

Scientific Program

Presentation of a new instrument for the measurement of near vision. Dr. Hilmar G. Martin.

At an informal dinner meeting of the society at the University Club on October 16, Dr. James Watson White of New York City discussed "Eye Muscle Anomalies—Special Reference to the Inferior Obliques."

Association of Clinic Managers

The twelfth annual conference of the Association of Clinic Managers was held at Sheboygan on September 23 and 24. Approximately forty-five clinics were represented at this meeting, which was held in the Association of Commerce lounge. Wisconsin speakers on the program were as follows:

Address of Welcome, Dr. H. H. Heiden, president, Sheboygan.

"Wills, Estates and Inheritance Taxes," Mr. Charles Voigt, Sheboygan.

"Compulsory Health Insurance," Mr. J. G. Crownhart, Madison.

"The Social and Economic Effects of the Operation of the Wisconsin Unemployment Compensation Act," Mr. Voyta Wrabetz, Madison.

"The Social Security Act and Proposed Changes," Prof. Edwin E. Witte, Madison.

A dinner dance at the Pine Hills Country Club, with Dr. Otho Fiedler presiding as toastmaster, was a part of the entertainment during the meeting.

News Items and Personals

About fifty doctors and their wives were entertained at luncheon at the Loraine Hotel, Madison, October 2, following the postgraduate clinic held at the Methodist Hospital—Jackson Clinic. Speakers on the morning program were Dr. A. J. Wiesender, Berlin; Dr. James Sargent, president of the State Medical Society, Milwaukee; Dr. Stephen Gavin, Fond du Lac; Dr. William Jermain, Milwaukee; and Dr. Eben J. Carey, dean of the Marquette University Medical School in Milwaukee.

—△—

Dr. Sara Geiger of the Milwaukee County Mental Hygiene Clinic was the guest speaker at a meeting of the Women's Advertising Club of Milwaukee, Thursday evening, September 23, at the City Club. Doctor Geiger spoke on "Why Do We Act as We Do?"

—△—

Dr. M. P. Ohlsen, Monticello, recently took a postgraduate course at the Cook County Graduate School of Medicine and Surgery at Chicago. He resumed his work at Monticello on October 4.

—△—

Dr. E. C. Kocovsky, formerly of Milwaukee, has moved to Ripon. His address is 209½ Watson St.

—△—

Dr. R. J. Henderson of Tomahawk now has associated with him Dr. Edwin M. Kahn, a former army staff physician and surgeon.

—△—

Dr. William A. Werrell, Madison, appeared before the Cambridge Community Club on Wednesday, September 22. The subject of his address was "Cancer Control."

—△—

Dr. H. M. Coon, superintendent of the Wisconsin State Sanatorium at Statesan, was one of the speakers at the symposium on sanatorium administration at the Mississippi Valley Conference on Tuberculosis at Dayton, Ohio, September 22 to 25. The subject of his address was "Relation of the Private to the Public Sanatorium."

Two orthopedic clinics were held during October under the auspices of the Crippled Children Division of the State Department of Public Instruction and the Eau Claire–Dunn–Pepin County Medical Society and the Sheboygan County Medical Society. The first was held in Eau Claire on Friday, October 8, the examinations being conducted by Dr. R. E. Burns of Madison and Dr. Robert P. Montgomery of Milwaukee. The second was held in Sheboygan on Saturday, October 30, and the examinations were conducted by Dr. W. P. Blount and Dr. L. D. Smith of Milwaukee.

—△—

Announcement of a Graduate Course in Venereal Disease Control, Western Reserve University, Cleveland, Ohio. — Graduate courses for training in the various phases of venereal disease control have been instituted by Western Reserve University, Cleveland, Ohio, under authority of the United States Public Health Service and the Ohio State Director of Health. They will be open without fees to health officers and to physicians cooperating with state and local health departments in the states of Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota and South Dakota, but the number who can be admitted is limited. The course may be entered at any time when a vacancy exists, usually for a duration of three or four months or longer. Visitors may also be admitted for shorter periods, if they can be accommodated. The training will be informal and adapted to the individual needs of those taking the course.

—△—

Dr. A. B. Schwartz, Milwaukee, was the guest speaker at the dinner meeting of the Neenah–Menasha and Oshkosh Visiting Nurse Associations which was held Thursday evening, September 30, at the Oshkosh Country Club. The meeting was in celebration of the silver jubilee of the national organization of Public Health Nursing. Doctor Schwartz spoke on "Trends in Public Health Nursing."

Dr. E. A. Pohle, professor of radiology at the University of Wisconsin Medical School, attended a medico-military symposium held at the Mayo Clinic recently. Doctor Pohle holds a commission of lieutenant-commander in the naval medical reserve corps.

—△—

The members of the University of Wisconsin Medical Society and the preceptors of the Medical School heard an address by Dr. Everett D. Plass, professor of obstetrics and gynecology at the University of Iowa, on Friday, October 15. Doctor Plass spoke on "Polyneuritis of Pregnancy."

—△—

Dr. G. F. Wakefield of West Salem spoke at the meeting of the Study Club on Monday afternoon, October 11. His subject was "Prevention of Cancer."

—△—

Dr. T. D. Smith of Neenah and Dr. Frederick J. Jensen of Menasha led a discussion before the members of the staff at the Theda Clark Hospital at Neenah, Friday afternoon, October 8. The subject of the discussion was "Anesthesia."

—△—

Appearing before the members of the Merrill School Mothers' Club, Dr. H. A. Raube of Beloit addressed the group on the subject of "Infantile Paralysis." The meeting was held on September 23 at Beloit.

—△—

Dr. H. F. Deicher, health officer at Plymouth, was the guest speaker at the meeting of the Kiwanis club on Monday, September 27. Dr. Deicher's subject was "Infantile Paralysis."

—△—

Dr. J. B. Skibba, Menasha, was recently reelected state medical examiner of the Catholic Knights of Wisconsin at the state meeting at Beaver Dam.

—△—

Dr. R. C. Buerki, superintendent of the Wisconsin State General Hospital at Madison, addressed the members of the Nebraska Nurses' Association at Lincoln, Nebraska, on Thursday evening, October 14. He discussed the scarcity of nurses in American hospitals.

—△—

At the meeting of the Milton Civic Club, Milton, Wednesday evening, October 6, Dr. M. Trautmann of the State Board of Health in Madison spoke on "The Prevention and Eradication of Syphilis." Motion pictures from the Department of Public Health were shown to explain the work being done in this as well as in foreign countries. Thirty-three members and three guests were present at the meeting.

—△—

Dr. J. H. Doyle, who has practiced in Little Chute for the last forty years, was honored at a testimonial dinner on October 13 at the St. John Auditorium at Little Chute. This dinner, which was sponsored by thirty of the business men in the village, was attended by numerous friends of Doctor Doyle from the counties of Brown, Outagamie, Winnebago, and Calumet.

—△—

Appearing before the Rotary Club at the Athearn Hotel, Oshkosh, on September 27, Dr. B. J. Hughes, Winnebago, spoke on the Wisconsin system for care of mentally ill residents. Doctor Hughes is assistant to the superintendent of the Winnebago State Hospital.

—△—

Dr. Spencer Beebe of the Sparta Clinic gave an address at the convocation of the Youth School of Life at the First Congregational Church on Sunday evening, October 3. Dr. Beebe's subject was "Forty Years a Country Doctor."

—△—

Milwaukee received its certificate as "healthiest large city in the nation" on Thursday evening, October 7, at ceremonies in New York attended by members of the American Public Health Association. Dr. Thomas Parran, United States surgeon general, made the presentation for the United States Chamber of Commerce to Dr. J. P. Koehler, Milwaukee health commissioner.

—△—

The American Medical Association will hold its eighty-ninth annual session in San Francisco from June 13 to 17, 1938.

—△—

Dr. J. V. Herzog of Elkhorn, Wisconsin, is taking a three months' course in proctology at the New York Polyclinic.

—△—

The State Medical Society of Wisconsin will hold its ninety-seventh anniversary meeting in Milwaukee from September 13 to 16, 1938.

—△—

The American Board of Obstetrics and Gynecology announces that the next examinations (written and review of case histories) for Group B candidates will be held in various cities of the United States and Canada on Saturday, November 6, 1937, and Saturday, February 5, 1938. Application for admission to these examinations must be filed on an official application form in the office of the Secretary at least sixty days prior to these dates.

The general oral, clinical and pathological examinations for all candidates (Groups A and B) will be conducted by the entire Board, meeting in San Francisco, California, on June 13 and 14, 1938, immediately prior to the meeting of the American Medical Association.

Application for admission to Group A examinations must be on file in the Secretary's office before April 1, 1938.

For further information and application blanks address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, Pennsylvania.

—△—

Dr. Chester M. Kurtz of Madison announces the opening of an office in Suite 416, 425 East Wisconsin Avenue, Milwaukee.

Dr. Joseph Dean, Sr., following a summer's convalescence from his illness of last May, has now returned to active practice.

—△—

At a meeting of the State Board of Medical Examiners held at the Hotel Witter, Wisconsin Rapids, on Thursday, October 14, the license of Dr. Elgie Kraut of Lancaster was revoked by reason of court record.

MARRIAGES

Dr. John M. Usow, Milwaukee, and Miss Ella Mae Goodman, Norfolk, Virginia, on October 10.

Dr. William Kleis, Milwaukee, to Miss Marion Design, Milwaukee, on October 13.

Dr. Oscar William Hurth, Cedarburg, and Miss Mary Ellen Kolls, Milwaukee, on October 19.

Dr. David E. W. Wenstrand, Milwaukee, and Miss Margaret Letchworth, Minneapolis, on October 9.

Dr. C. E. Zenner, Cadott, and Miss Lorraine Huston, Milwaukee, on October 9.

Dr. Hart E. Van Riper, Madison, and Miss Mary-Virginia Smith, Washington, D. C., on October 14.

BIRTHS

A daughter to Dr. and Mrs. Arthur D. Bussey of Two Rivers on October 18.

A daughter, Marcia Rose, to Dr. and Mrs. E. M. Houghton of Lancaster on September 24.

DEATHS

Dr. John Chorlog, Madison, died on October 18 in a Madison hospital from an injury received in an auto accident. He was born in Galesville in 1903 and received his medical training at the University of Wisconsin Medical School. He served his internship at the Chesapeake and Ohio Hospital, Clifton Forge, Virginia, and took special work at Roanoke, Virginia, for one year.

Since 1929 Doctor Chorlog had been in practice with his father Dr. J. K. Chorlog. He was a member of the Madison Academy of Medicine, of which he was a former president. He was also a member of the Dane County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association. Surviving are his widow, a daughter, and his father and mother.

Dr. Julius E. Franzel, Fort Atkinson, died at his home on October 14. He was graduated from the Wisconsin College of Physicians and Surgeons, Milwaukee, in 1902, and was a member of the Jefferson County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association. He is survived by his widow and four daughters.

Dr. Michael Ravn, Merrill, who founded the Ravn Clinic of that city, died at his home October 1. Born at Laedal, Norway, in 1852, he received his medical training in the University of Oslo. For six months Doctor Ravn practiced at Sogndal, Sogn, and then came to the United States, settling at Scandinavia in Waupaca County. He established offices in Merrill in 1900 and was in active practice until 1923. Doctor Ravn was an honorary member of the Lincoln County Medical Society. Surviving him are his widow and five children.

Dr. George F. Adams, Kenosha, died in a Kenosha hospital on October 19, where he was taken following injuries sustained in a fire at the Hotel Dayton where he lived.

Doctor Adams was graduated from the Hahnemann Medical College and Hospital in Chicago. He practiced in Pulaski, New York, for seven years, then became chief of staff of the State Hospital at Westboro, Massachusetts, and was later associated with the State Hospital for the Insane at Gowanda, New York. In 1904 Doctor Adams joined the staff of the Pennoyer Sanatorium in Kenosha, and in 1915 he opened a private office for general practice, specializing in psychiatry.

He was a member of the Kenosha County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

He is survived by a son and a daughter.

Dr. Alexander J. Rudolf, Milwaukee, died at Mount Alto Hospital in Washington, D. C., on October 5, while returning from the national convention of the American Legion in New York. Death was due to a heart condition. He served in France during the World War as a captain in the medical corps and held a life membership in Post No. 1, of the American Legion in Milwaukee.

Born in 1877, he was graduated from Northwestern University Medical School in 1901. He is survived by his widow and a son.

Dr. Jacob Quam, Deerfield, who had been in poor health for several years, died at his home on October 1. Born in Sogn, Norway, in 1865, he studied medicine there before coming to America. His medical education was completed in Chicago at Rush Medical College, and he began his practice in Deerfield in 1887. Surviving are his widow, a sister and a brother.

Dr. Herbert A. Robinson, Kenosha, died at his home on Friday, September 24. Death was due to a heart condition. Born in Waterford, Ontario, in 1864, he was graduated from the Rush Medical College in Chicago in 1889. He was a surgeon for the Chicago North Shore and Milwaukee Railroad and the Chicago North Western Railway. He served on the medical advisory board during the first year of the World War and as captain in the medical corps at Greenleaf, Georgia, Chattanooga, Tennessee, and

Camp Sevier, South Carolina. In 1924 he became a member of the International Research Institute, New York. He is survived by his widow and one sister.

SOCIETY RECORDS

New Members

E. M. Kahn, 816 S. 8th Ave., Manitowoc.
M. J. Hermes, 616 6th St., Racine.
C. M. Creswell, 2910 Roosevelt Rd., Kenosha.
A. C. Edwards, State Board of Health, Madison.
F. W. Kundert, 224 W. Washington Ave., Madison.
P. H. Halperin, 15 W. Main St., Madison.
A. W. Adamski, 1013 16th St., Racine.
T. J. Pfeffer, St. Mary's Hospital, Racine.
J. E. Haberland, 324 E. Wisconsin Ave., Milwaukee.
A. M. Bachhuber, Kaukauna.
Ludwig Gruenwald, 802 Michigan Ave., Sheboygan.

Changes of Address

Frances A. Cline, Rhinelander, to School of Hygiene and Public Health, Baltimore, Md.

E. C. Kocovsky, Wauwatosa, to 209½ Watson St., Ripon.

J. V. Herzog, Elkhorn, to 8th Avenue at 51st St., New York City.

CORRESPONDENCE

THE BRYAN STUDIES

October 11, 1937.

Mr. J. G. Crownhart, Editor
Wisconsin Medical Journal
Madison, Wisconsin

Dear Mr. Crownhart: I have just received a letter from Dr. A. J. Quick in which he objected to a statement made in the paper by Nygaard and me, entitled "Measuring the tendency to hemorrhage in cases of obstructive jaundice, with special reference to the photo-electric method." The paper was published in the September, 1937, issue of the "Wisconsin Medical Journal." The statement to which Doctor Quick objected is, "Among the first to use the hippuric acid test was Bryan, in 1924; later Quick and Snell and Plunkett used it."

Doctor Quick feels that the quoted statement puts in question his claim as originator of the hippuric acid test for liver function as well as his claim to priority in the use of the method. The statement was not made with the intention of questioning these claims, which are well established, and I seek this opportunity to correct any different impression.

Bryan's studies, however, deserve mention in any discussion of the synthesis of hippuric acid in disease of the liver. He studied the synthesis of hippuric acid in normal subjects, in pregnant women, in women postpartum, in subjects with essential renal involvement, in those with slight renal involvement and, finally, in ten patients who had severe disease of the liver. Using the method described by Kingsbury and Swanson for the determination of total benzoic acid, Bryan found a definite reduction in the two-hour output of benzoic acid of seven of the ten patients mentioned and a definite reduction (8 per cent) in the three-hour output of five of the ten. Bryan could not, at that time, on the basis of this or of previous work, exclude the kidney as the cause of the reduction. Bryan also studied the output of free benzoic acid, using the method of Morgulis, and found evidence of hepatic impairment in all of the cases in which the values for free benzoic acid were more than 3 per cent. Bryan suggested that further work might demonstrate that the determination of elimination of free benzoic acid after administration of a standard dose of sodium benzoate could be of value as a functional test in establishing the degree of hepatic impairment.

Credit should be given Doctor Bryan for his work without detracting from Doctor Quick's claim as originator of the test now in use or his claim to priority in its clinical application.

Yours very truly,

M. W. Comfort.

Dane County Medical Society*

By WILLIAM SNOW MILLER, M. D.
Madison

DANE COUNTY MEDICAL SOCIETY

Dane County Medical Society	1850
Wisconsin Central Medical Association	1856
Dane County Medical Society	1869
Central Wisconsin Medical Society	1886
Dane County Medical Society	1903

* Read at the February, 1937, meeting of the Wisconsin Medical History Seminar.

Part I: 1850-1860

CHAPTER XXVII, section 1, of the Revised Statutes of Wisconsin, as published in Volume I of the Proceedings of the Wisconsin State Medical Society reads, in part, as follows:

> It shall and may be lawful for the physicians and surgeons in the several counties in this state, to meet together on such a day as they

> or a majority of them shall deem proper, at the place where the last term of the county court next preceding such meeting, shall have been held in their respective counties; and the several physicians and surgeons so convened as aforesaid, or any part of them, being not less than five in number, shall proceed to the choice of president, vice president, recording secretary, corresponding secretary, treasurer and censors; who shall hold their offices for one year, and until others are elected to fill their places.

In conformity with the above act a meeting was held at the court house, Madison, January 15, 1850, to form a county medical society.

Doctors C. B. Chapman, A. J. Ward, John Favill, Joseph Gray, C. B. Pearson, and N. M. Dodson "presented their credentials agreeable to the statutes." On motion of Dr. Joseph Gray it was resolved that a county medical society be organized. Dr. Chapman was elected president; Dr. Gray, vice president; Dr. Ward, recording secretary; Dr. Pearson, treasurer; and Dr. Favill, corresponding secretary. Doctors Gray, Favill, and Pearson were appointed to draft a constitution and by-laws.

The society adjourned to meet "the 3rd Wednesday in February at 1 o'clock, at the office of the County Judge." There is no record of this meeting; but on February 19, 1851, there was a meeting at which a constitution and by-laws were adopted. The following excerpts are taken from the Constitution:

> We, the undersigned, believing that Medical mutual good feeling and interest of Community are subserved by Medical organization, agree to form ourselves into a County Medical Society.
>
> Article 1. This Society shall be called the Dane County Medical Society.
>
> Article 2. Any person may become a member of this Society who shall have received a Diploma from any Allopathy incorporated Medical College, or Society, of any of the United States or Territories, or any foreign Country, provided he still adheres to the faith and practice of the College or Society of which he is a graduate, and shall sustain a good moral character.

The remaining six articles are as simple and straightforward as the two given. Quacks and irregular practitioners were not wanted.

No further meetings were recorded until April 19, 1856, at which time the "Physicians of Madison met at the office of Dr. A. Schue for the purpose of reorganizing a county medical society." Dr. Chapman was elected chairman, and Dr. Guthrie, secretary. "The Constitution and By-Laws of the Dane County Medical Society, which was organized in 1850, was read." The record does not show whether at this time they were adopted. The main discussion turned on the question whether a *city* or a *county society* should be formed. The vote was for a county society. Thirty years later the "Madison Medical Club" was formed; but this is another story—it will be told at some future time.

All the meetings of the Society were, as noted above, held at the office of some member designated by the president. The order of exercises, as laid down by the By-Laws, were as follows: (1) Reading of the record of the last meeting. (2) Admission of new members. (3) Treasurer's report. (4) Reading of an essay. (5) Appointment of essayist. (6) Miscellaneous business. (7) Election of officers. (8) Debates to be conducted according to parliamentary usages. At times an interesting case was reported in place of an essay.

At the April 26, 1856, meeting, the Constitution and By-Laws were again the subject of discussion. "Dr. Schue from the committee on revision of the constitution and by-laws presented his report, which was considered seriatim." The report was adopted and the committee discharged. Officers were elected to serve to the time of the annual meeting in July. Dr. Chapman was elected president; Dr. Gray, vice president; Dr. Guthrie, secretary; and Dr. Brown, treasurer. Doctors Schue, Favill, and Brown were elected censors.

At the May 3, 1856, meeting, the society elected Doctors Chapman and Ward delegates to the national medical convention.

At the annual meeting, July 5, 1856, no change was made in the officers of the Society, except that Dr. Ward was elected a censor in place of Dr. Brown. As treasurer, Dr. Brown reported the treasury in good condition with a balance of $3.50 on hand. The president, Dr. Chapman, "read

a synopsis of the biography of Laura Bridgman," the blind deaf-mute.

At the August 5, 1856, meeting of the society, Edward Heath was elected to membership. He takes an important part in the society, and has an interesting history, as will appear later. At the October 4, 1856, meeting of the society Dr. Heath was elected secretary, replacing Dr. Guthrie. Laryngitis was the subject of discussion. Dr. Chapman "had seen the treatment recommended by Dr. Green and approved of it; viz., swabbing with a solution of the nitrate of silver. Tracheotomy was considered; but was considered a risky operation, especially if the disease extended any distance down the trachea." The discussion finally turned on medical etiquette and consultations.

Laryngitis was again the subject of discussion at the November 5 meeting. This was followed by a paper by Dr. Favill, who discussed "the state of feeling as evinced by Medical Men towards each other." Dr. Chapman presented a paper on "Healing by first intention." A discussion arose on the use of pus in assisting the healing process and, strange to say, this led to the treatment of chancre. "Doctors Favill, Brown, and Woodward strenuously maintained early treatment by the knife and caustics, while Dr. Heath and Dr. Schue, advised the exhibition of Mercury." Venereal disease was discussed in 1856 the same as it is in 1937.

At the December 11, 1856, meeting, Dr. Heath read an essay on fever. "An animated discussion arose as to the utility of Tartrate of Antimony and opium in fevers. Dr. Woodward mentioned two cases where the combination of these medicines suited well for the occasion."

At the meeting January 10, 1857, Dr. Woodward brought up the question of the usefulness of *Secale cornutum* in uterine hemorrhage. Doctors Favill, Brown, Schue, and Heath approved of its use. Dr. Schue used ergot with borax. Dr. Brisbane said "that after 20 years experience he had no confidence in it—it had no specific action on the uterus."

Wis. Central Medical Ass'n

Routine business and discussion of medical problems occupied the meetings, which were held regularly, until the April 6, 1857, meeting, when Dr. Favill moved "that the present name of the Society be changed, and altered, to that of the Wisconsin Central Medical Association." The motion was seconded by Dr. Schue and unanimously carried.

On May 9, 1857, a discussion took place among the members "as to the nature of Rheumatic Fever." Dr. Schue ascribed the peculiar odor that attended the disease to the presence of uric acid. Dr. Favill expressed his "dissatisfaction with the treatment of the disease as partaking something of the Empirical." The members generally agreed "as to the fibrous membranes being the favorite situation of the disease, particularly those covering the joints." They became so interested in the topic that it was made the subject for discussion at the next meeting.

At the meeting of the Wisconsin Central Medical Association held July 3, 1857, the number of members required to form a quorum was reduced from four to three. The subject continued from the previous meeting was, on account of the annual election of officers, made that of the next meeting. The Association then proceeded to the election of officers for the ensuing year:

President: Dr. Heath.
Vice president: Dr. J. J. Brown.
Secretary: Dr. Schue.
Treasurer: Dr. Brown.
Censors: Dr. Chapman, Dr. Woodward, Dr. Favill.

"*N.B.* According to Art. 4th of the constitution, the members are to pay 25 cents annually."

The meeting August 1, 1857, was recorded in more detail than usual. This was due to the fact that Dr. Schue was not only the essayist, but also the secretary. His subject was a continuation of the discussion originating in the meeting of May 9, and one that still interests the medical profession—rheumatism. He "maintained that rheumatism was excited by an accumulation of effete matters in the blood, the natural outlets of which were obstructed. These effete matters consisted principally of lactic and uric

acid, lactates of soda and ammonia, etc., products which arise from the disintegration of tissues and from nitrogenized foods—that is, from the combination of O with the elements of albuminous and protein compounds."

Curative medication, Dr. Schue thought, "consisted in augmentation of all the natural secretions, more particularly those of the skin and kidneys—in a restoration of healthy digestion, by which the assimulation of nitrogenised food is insured and its conversion into uric acid is prevented." Dr. Schue denied the existence of any specific remedy capable of staying the disease.

The meeting on October 3, 1857, was, "after a brief conversation, adjourned for one week, out of respect to Dr. Schue, the secretary of the Society, on account of his serious, and probably fatal illness." Dr. Schue died of dysentery October 8, 1857.

On Friday morning, October 9, a special meeting was held for the purpose of making arrangements to attend the funeral of Dr. Schue.

The following resolution was passed:

> *Resolved:* that we attend his funeral as a society, and request the physicians of the city and vicinity to join in the procession.

Also, a committee of three was appointed to prepare suitable resolutions, commemorative of the deceased, to be presented at a subsequent meeting. If such a meeting were held, no record appears; and no resolutions are recorded. Under date of November 27, 1857, Dr. Heath devotes an entire page of the record book to remarks telling of Dr. Schue's sufferings, and of how patiently he endured them.

From a short sketch published in the October 9, 1857, issue of the *Argus and Democrat*, we learn that Dr. Schue was 36 years old at the time of his death; that he was of German descent; that he had been a student under Liebig at Giessen; and that he had practiced medicine in Kentucky before he came to Madison.

In 1854, the Board of Regents of the University of Wisconsin had provided for the organization of a medical department. Dr. Schue had been appointed professor of the institutes of medicine and pathological anatomy. But the medical department, which seemed assured for a time, had turned out after all to exist only on paper. It is a matter of regret that I have been unable to learn more about Dr. Schue.

The death of Dr. Schue seems to have had a depressing effect on the activities of the association, for no meetings are recorded between October 9, 1857, and April 10, 1858. At this meeting Dr. Coldridge [Coolidge?] was elected a member.

A call for a meeting of the society [association] to be held on the evening of July 3, 1858, was issued in the local papers. Owing to the absence of some of the members, the meeting adjourned to July 10, at which time officers for the ensuing year were to be elected. The names of the officers elected were not only entered in their proper place in the record book, but they were also entered on a blank page in a new book with the year and place of their graduation attached. This is the only instance in which a record of this nature is found.

President: Dr. John Favill, University of Cambridge, Mass. [Harvard] 1847.

Vice president: E. S. Carr, Castleton Medical College, Vt. 1842.

Secretary: E. N. Heath, Lict. Royal College of Surgeons. Ireland, 1832. To this entry there is a later addition in the handwriting of the secretary, Lict. of Midwifery, 1861. M. D. of R.C.S.D., 1863.

Treasurer: Jas. J. Brown, Indiana Med. Col. 1849.

Censors: C. B. Chapman, Vermont Academy of Medicine. 1836. To this entry there is a later addition in the handwriting of the secretary, Professor of Anatomy & S. Cincinnati, O. E. S. Carr, Professor of Chemistry, Madison University. Jas. J. Brown.

Members: C. C. Hayes, University of Pennsylvania. 1856. S. E. Coolidge, Berkshire, Mass.

For a medical society in a state but ten years old, and in a city two years old [Madison was incorporated as a city March 4, 1856], this is a notable list of officers. Not only are medical schools from various parts of the United States represented, but also one from Great Britain. For this reason, and because they were the mainstay of the society during the early years of its existence, a brief sketch of each officer is given.

Dr. John Favill

Dr. John Favill

Dr. John Favill was born October 10, 1820, at Manheim, Herkimer County, New York. Some years later his parents moved to Lake Mills, Wisconsin. John, however, was left in the East to finish his education. He attended Cazenovia Seminary for his academic training, and then went to Harvard Medical School. He was one of a class of forty-eight that graduated from Harvard in 1847. Several of his classmates served with distinction in the Civil War. The most notable member of his class was John Call Dalton, later professor of physiology in the College of Physicians and Surgeons, New York. Dalton's *Treatise of Human Physiology* went through seven editions, and was extensively used as a textbook in the leading medical schools of his, and a later, day.

Dr. Favill came to Wisconsin in the Fall of 1847, and began practice in Lake Mills. In 1848 he came to Madison and spent the remainder of his life there. At first he was associated with Dr. C. B. Chapman. How long this continued, I do not know; but with its termination he continued practice without any associate except, for a short time previous to his death, his son, Dr. H. B. Favill.

Dr. John P. Clement was appointed medical superintendent of the Wisconsin State Hospital for the Insane (Mendota) May 22, 1860. "At a later period, and after Dr. Clement had commenced the reception of patients, he appointed Dr. John Favill of the City of Madison to the office of Assistant Physician." The exact date I have not been able to ascertain, but on August 14, 1860, Dr. Henry (Harry) Baird Favill was born there. This is stated on the authority of a letter sent Dr. H. K. Tenney, Jr., by his mother, Mrs. H. K. Tenney (Eleanor Burnside Favill), sister of Dr. Harry Favill. In the record book of the Wisconsin Central Medical Association it is stated that the September 2, 1860, meeting of the Society which was "to be held properly at Dr. Favill's office was not held on that day, Dr. Favill having removed to the Asylum." Apparently the doctor's connection with the asylum terminated in 1861; for after that date I find no mention of his name in connection with it.

So far as I have been able to ascertain, Dr. Favill was the sixth physician to settle in Madison. The names and dates of arrival of his predecessors are as follows: Almor Lull (1838); J. Spencer (1844); J. Bristol (1844); H. A. Tiffany (1845); and C. B. Chapman (1846).

Dr. Favill was a hard and a diligent student in all that pertained to his profession; he was "the most prominent and the most beloved of Madison's physicians." He was president of the Wisconsin State Medical Society in 1872, and was a member of the State Board of Health from its organization in 1870 to 1882. While testifying in court he suffered a cerebral hemorrhage and died four days later, Sunday, December 9, 1883.

Dr. Ezra S. Carr

Dr. Ezra S. Carr was born in Stephentown, Rensselaer County, New York. After graduating from the Rensselaer Polytechnic School in Troy, New York, he was appointed by William H. Seward, at that time governor of New York, assistant in the geological survey of the state. When not doing field work,

Dr. Ezra S. Carr

he spent his spare time in studying medicine at Albany. He continued his medical studies at the Castleton Medical College, Castleton, Vermont, and was graduated from that institution in 1842.

Following his graduation, he taught chemistry and natural history at Castleton. Butterfield says, "From 1846 to 1850 he lectured alternately in Castleton and Philadelphia medical colleges, giving two courses annually in each of these institutions." I have not been able to ascertain the Philadelphia colleges in which he is said to have lectured.

He took an active part in state affairs. He was elected president of the Vermont state temperance society in 1846, and at the same time appointed a delegate to the World's Temperance Convention in London. As an officer of the state educational society he took an active part in efforts to provide competent teachers to western and southern states. During his service as a member of the state legislature he advocated a geological survey of the State and increased appropriation for public education.

In 1853 Dr. Carr was elected temporarily to the chair of chemistry and natural history in the University of Wisconsin. He declined the appointment, having been elected professor of chemistry and pharmacy in the University of Albany. Later he was appointed chemist to the New York state agricultural society.

In 1854 he was offered the chair of chemistry and natural history in the University of Vermont but declined the office, having been engaged to teach these sciences at Albany and to give a course of summer lectures at Middlebury College, Vermont.

In 1856 Dr. Carr was appointed professor of chemistry and natural history at the University of Wisconsin, a position he held for twelve years. In 1856 he became a member of the State Medical Society of Wisconsin, and in 1859 was elected president of the Society. In 1857 he was appointed a regent of the University, serving two years. In 1864 he was appointed acting professor of chemistry in Rush Medical College, Chicago, serving three years. In 1867 he was elected president of the Central Wisconsin Medical Association.

In 1868 Dr. Carr resigned his professorship in the University of Wisconsin and went to California. Here he at once took an active part in educational and medical affairs. In 1869 he was elected professor of chemistry and horticulture in the University of California. In 1870 he was elected professor of chemistry in the Tolland Medical College, San Francisco, which in 1873 became the medical department of the University of California. His connection with the medical school terminated at the end of a year, at which time he was made superintendent of public instruction (1875–1879), a position which corresponds, at the present time, to dean of the extension division.

Professional prejudice against women in medicine was strong in California, and it was not until after a long and bitter struggle that they were admitted. The passage of a medical practice act in 1876 contained no female disability clause. At the meeting of the State Society at San Francisco in 1876 the admittance of women was considered. The censors reported favorably. Dr. Carr moved that the secretary cast the Society ballot in

favor of their admittance. The motion prevailed—the long struggle ended.

Sometime in the early 80's Dr. Carr left the University and settled on a large estate which he had acquired in Pasadena. It is not improbable that his interest in horticulture and agriculture, which he must have retained from the time of his appointment in 1869 as professor of chemistry and horticulture to his retirement from University work, led him to settle on his Pasadena estate where he could give up his time to the pursuit of these interests.

Dr. Carr died at Pasadena, California, November 28, 1894.

Dr. Edward N. Heath

Dr. Heath came to Madison some time in 1854. Diligent inquiries of old residents have failed to find anyone who had more than a hazy remembrance of him. His home and office were on the south side of Morris [now Main] Street, between Bassett and Broom streets. He did not own the house. Its exact location I have not been able to identify, but it was close to what is now 421 Main Street. There is a slight depression in the vacant lot next to 421, and this may have been the location of his home.

His practice was limited; apparently he had a hard time financially. Both the doctor and his wife were musical, and much in demand at evening gatherings. Mrs. Heath gave music lessons; whether vocal, instrumental, or both, I do not know. They had one son. In a letter recently received from a friend now living in California who attended the same ward school with him, he is described as "a very nice blond boy." Dr. Reginald Jackson tells me that in later years he called on his father but that he himself did not know him. Further information is lacking.

At the meeting of the Dane County Medical Society held August 5, 1856, the chairman of the board of censors, Dr. A. J. Ward, recommended Dr. Heath for membership. "On motion of Dr. Favill he was declared elected." At the October 4, 1856, meeting of the society, Dr. Heath was appointed secretary "in lieu of Dr. Guthrie," and at the annual meeting of the Wisconsin Central Medical Association (note change in name) July 3, 1857, he was elected president. Thus, in less than a year after joining the association he went from an ordinary membership to be its secretary and then became its president. On June 24, 1865, he was elected vice president, and on August 4, 1866, he was, for a second time, elected president of the association.

On two different occasions Dr. Heath returned to Ireland for a longer or shorter stay (see summary at the end of this sketch).

During his residence in Madison, Dr. Heath was a constant attendant at the meetings of the association. In fact the record book shows that he never was absent from a meeting when he was in Madison. It may be for this reason that he was again elected secretary of the Dane County Medical Society [note return to the old title] in 1869, and was continued in office until his final departure for Ireland in 1874.

Lacking definite information in regard to Dr. Heath previous to his arrival in Madison, I wrote to Sir D'Arcy Power in London, asking if he could give me any information, or refer me to someone who could do so. He sent my letter to Dr. T. Percy C. Kirkpatrick, registrar of the Royal College of Physicians of Ireland, Dublin, who in turn sent what information he could find to Sir D'Arcy, and he forwarded it to me. While this does not tell of his early life, or of the last years of his life, it does fill in some of the gaps in his life in Madison.

Dr. Kirkpatrick's Report

About the middle of last century there were several persons of the name of "Heath" in medical practice in Co. Wicklow. In the earliest Irish Medical Directory, 1843, three names are given.

1. Edward Heath, L.R.C.S.I., Licentiate Apothecary, Medical attendant of Rathvilly Co. Carlow. His address is given as Baltinglass.
2. Nicholas William Heath, L.R.C.S.I., Medical attendant of the Fever Hospital, and surgeon to Baltinglass Infirmary and Constabulary. His address is given as Stratford.
3. William Heath, Licentiate Apothecary and Accoucheur of the Dublin Lying-in Hospital. (L. Mid. Rotunda.) His address is given as Arklow.

In the second Irish Medical Directory, 1845, these names are repeated with the addition of making Nicholas William Heath a fellow of the Royal College of Surgeons which he became in 1844. In the directory for 1854 the name of Edward Heath has disappeared. On May 14, 1861, Nicholas William Heath died and was buried in Baltinglass where there was the following inscription on his tomb:

> Near this are interred the remains of William N. Heath Esqre F.R.C.S.I., for upward of 36 years the successful and valued medical officer of this district. This tablet is erected to his memory by a large circle of sorrowing friends as a small token of their estimation of his private virtue and public worth. He died at his residence in Stratford on the 14th day of May 1861 in his 60th year relying on the merits of his Redeemer and in the confidence of a joyful resurrection to eternal life.

In the directory for 1862 there appears the following notice:

> Heath, Edward Nicholas, Baltinglass, Co. Wicklow—L.R.C.S.I. 1832; L.M. 1861; (Richmond School and R. C. S. Dublin); Surgeon Hacketstown Dispensary and Medical Attendant Rathvill Dispensary 1833; Assistant Surgeon Baltinglass Infirmary 1849; Member (President 1859) Wisconsin Central Medical Society, U. S.

From this notice it would appear that Edward Nicholas Heath and the Edward Heath of the directories of 1843 and 1846 are the same person. Sometime between 1846 and 1854 Edward Nicholas Heath had left Baltinglass and gone to Wisconsin. He seems to have returned about 1860 or 1861 [1861] possibly on account of the death of Nicholas William Heath whose practice he seems to have taken up in Baltinglass. In 1861, he took the license in midwifery of the College of Surgeons and in 1863, the license in medicine of the same College. In the Directory for 1865 he is described in addition L. Med. R.C.S.I., 1863. In the Medical Press for February 25, 1863, (p. 185) he published a paper on a case of depressed fracture of the skull, where he describes himself as Edward Heath L.R.C.S.I. of Baltinglass. For some years the name appears regularly in the Irish section of the directory with the address Baltinglass; but in 1870 it is gone from that section and appears in the foreign list, Edward Nicholas Heath with the address Madison, Wisconsin, North America.

This is repeated regularly till 1875, but in the directory for 1876 it is not found although there is not any notice of his death in the obituary list.

The inscription on the tomb of William Nicholas Heath does not give any clue to the relationship, if any existed, between William Nicholas Heath and Edward Nicholas Heath. By 1882 the name of Heath has completely disappeared from the practitioners in Ireland.

The alteration of the order of the Christian names from Nicholas William in the directory to William N. on the tomb possibly suggests that he was better known by the name William than by the name Nicholas.

In a personal communication to Sir D'Arcy Power, Dr. Kirkpatrick says: "At one time Licentiates in Medicine of either of our Colleges often described themselves as M.D., using the letters merely as an indication that they had a qualification in Medicine. Later on this was forbidden. A man might call himself Doctor, but he was not allowed to use the letters M.D. unless he had that degree from a University." There is nothing to indicate that Dr. Heath was or was not a university graduate.

From the above account the following summary can be compiled:

1832.	L.R.C.S.I., licentiate apothecary, medical attendant of Rathvilly, Co. Carlow, Ireland.
1854.	Arrived in Madison, Wisconsin. (Exact date not known.)
1861.	Left Madison, Wisconsin, in May for Ireland.
1861.	Licentiate in midwifery, R.C.S.D.
1863.	M.D., of R.C.S.C.
1864.	Returned from Ireland to Madison, Wisconsin.
1865.	Left Madison, Wisconsin, in June for Ireland.
1865.	On November 25 back in Madison, Wisconsin.
1874.	Left Madison, Wisconsin, for Ireland. Did not return to Madison. No further record.

That Dr. Heath was highly esteemed by his colleagues appears certain. It is strange

Dr. and Mrs. J. J. Brown, and daughter

that with his background he did not make more of a success in Madison.

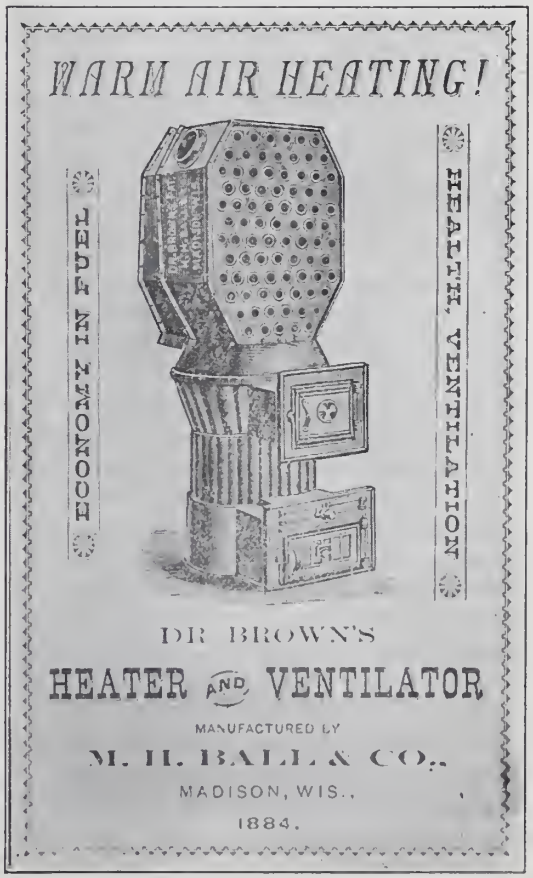
Dr. James Jackson Brown

Dr. Brown was born in La Porte, Indiana, April 28, 1827. He received his M.D. from the Indiana Medical College in 1849. In 1850 he went to California immediately after graduating, intending to establish a hospital in Sacramento. It was at the height of the gold rush. He found supplies and food almost impossible to obtain; eggs were $1 each and all else in like proportion.

He was engaged to marry but decided that California was no place for a young woman. He remained there, however, for two years, returning East in 1852. In the meantime he acquired some of California's gold.

On June 23, 1853, he married Sarah Anna Kress of Troy, Pennsylvania. His father, who is said to have built the first house in Louisville, Kentucky, was a man of means; and as his ten children married, he gave each one ten thousand dollars—a small fortune in those days. This enabled the young doctor to establish his practice where he would. He chose Madison, because it was the capital of the State, the seat of a university, and it offered cultural and professional possibilities. His home and office was on the corner of Carroll and Clymer [now Doty] Streets. He led a typical doctor's life, driving with sleigh and horses on the coldest nights of winter across or around the lakes to attend someone desperately ill—often being paid in bacon or eggs—and more often not paid at all.

He always deplored the lack of fresh air in houses in the winter time. This led him to devise a fresh air heater—what would now be termed an "air conditioned" heater. This was manufactured in various styles by M. H. Ball & Company of Madison. One of the first manufactured was placed in the old North Western station at the foot of Wilson street. Another was sold to the Western Union Telegraph Company and the manager wrote a very interesting letter to the manufacturers expressing satisfaction with it as a fuel saver and ventilator. Unfortunately



the factory, together with all the patterns, was destroyed not long after the early models were placed on the market. No attempt was made to replace the loss.

His especial professional friend was Dr. Favill, who often spent the evening in the doctor's office (possibly before one of his heaters) discussing medical problems.

About 1880 Dr. Brown's health broke down, and, as the climate of Wisconsin did not tend to his recovery, he removed to San Diego, California. The change in climate and complete rest led to recuperation. Early in December, 1891, he was called East to La Porte, Indiana, as administrator of his brother's estate. The climatic conditions did not agree with him. Shortly after his arrival he contracted pneumonia and died in Milwaukee, December 22, 1891.

Dr. C. B. Chapman

It is not necessary to repeat the sketch I gave of him in the June, 1936, issue of the WISCONSIN MEDICAL JOURNAL. His activities in the Dane County Medical Society are contained in this sketch of the Society.

Returning to the July 10, 1858, meeting, the record book states that "the Ex-president, Dr. Heath, read his valedictory. Dr. Favill proposed a vote of thanks to him. Dr. Chapman 2nd the motion — carried unanimously."

The meeting of August 7, 1858, was of special interest. After the minutes of the preceding meeting had been read by the secretary, Dr. Favill, "the President, addressed the Society and stated to the members that Dr. Heath [the Secretary] had mentioned in a rather too cursory manner his, the President's, vote of thanks to Dr. Heath, and wished now to reiterate the vote in a more marked manner to Dr. Heath for his conduct during his Presidential term. Dr. C. B. Chapman seconded Dr. Favill's friendly complimentary proceeding." Passed unanimously. Dr. C. C. Hayes presented his credentials and was elected a member.

It is a matter of regret that not only was no copy of Dr. Heath's address preserved, but also that others of like nature are missing. At first all "essays" were filed with the secretary; but with the death of

Dr. and Mrs. C. B. Chapman and family. Taken soon after their arrival in Madison.

Dr. Schue all the early ones were lost, and there is no record that later ones were placed on file.

Up to this time perfect harmony had prevailed in the association; but now a new feature entered the association—unprofessional conduct on the part of Dr. E. A. Woodward.

> The President called on the Secretary to read the By-Laws of the Association as Dr. Woodward requested such a proceeding—the Secretary read the By-Laws.
>
> The Secretary acquainted the meeting of his having specially called the Association together, as charges were preferred against one of its members; viz., Dr. Woodward, for having acted unprofessionally in publishing a placard headed as Medical and Surgical Institute. Secretary further stated to the Society that he sent notice to the Society rather irregularly as the Article 7, sec. 1, required.

This apparently proves that the revised Constitution and By-Laws submitted by Dr. Schue at the April 26, 1856, meeting of the Dane County Medical Society, and "considered seriatim," was adopted; for at the same time the committee of which he was chairman was discharged.

> Dr. Woodward said he would waive the privilege. The various members of the Society debated the propriety of proceeding under the circumstances; but the Society thought there would not be irregularity in going on.
>
> Dr. Heath read the paper called the Medical and Surgical Institute. Dr. Woodward addressed the chair by asking the question whether the Society acted as a corporate capacity, or an individual one It possessed no corporate capacity and hence the proceedings of

the Society were of an individual character, and members were responsible.

Further discussion took place, and at Dr. Brown's motion, seconded by Dr. Heath, the meeting adjourned to the following Saturday.

August 14, 1858. Adjourned meeting. Dr. Woodward addressed the Society and stated, in effect, "that if the Association adopted the National Code of Ethics, he would withdraw from the Association."

Dr. Chapman asked, "Did not the Society remember such a resolution having been passed at the formation of the Society?"

Dr. Ward recollected its being adopted when the Society organized. Dr. Chapman was confident that the National Code was adopted, and if left out, was different from what he expected. [It was left out.]

Dr. Chapman moved the following resolution:

Resolved: that the Code of Ethics adopted by the National Medical Association be regarded as the Code of the Society.

Seconded by Professor Carr. Carried unanimously.

Dr. Woodward then read the following address to the Society:

Mr. President and members of the Wisconsin Central Medical Society.

In consequence of the adoption of the National Code of Ethics as the law for the future government of this Association, I respectfully withdraw my name as a member of the same as I cannot at present subscribe to rules of so rigid a character.

Resp. yours,
E. A. Woodward.

He then moved that the above be entered on the record.

Dr. Carr moved that Dr. Woodward's withdrawal as offered by him be accepted by the Society. Seconded by Dr. Heath. Carried.

Dr. Woodward accordingly retired from the Association. Certain members discussed the propriety of retaining minutes of the transaction regarding Dr. Woodward. After some time it was concluded to leave the matter on the Society's book.

Society adjourned.
E. A. Heath, *Secy.*

There is no record of the time Dr. Woodward was elected to membership. The first time his name occurs in the record book is May 3, 1856, where he is listed as being present at the regular meeting of the Society. From this time until his resignation from the Association, he took an active part in the meetings. Dr. Woodward was not only a physician but also a druggist. In the Madison directory for 1855 his address is given as Morris [now Main] Street; but whether this was his residence or the combination of residence and drug store is not stated.

I have searched in vain for a copy of the "placard" which led to his resignation. It would have added interest to the proceedings if a copy had been included in the record book. By 1859 Dr. Woodward had left Madison and had settled in Sun Prairie, Wisconsin.

At the September 4, 1858, meeting the secretary read the minutes of the preceding meeting and they were approved by the president. Dr. Coolidge, having complied with the requirements, was elected a member.

At the October 16, 1858, meeting consultation with irregular practitioners was discussed. The subject was introduced by Dr. Brown, who questioned:

The propriety of members of the Association meeting under any circumstances medical men or men who practiced as physicians, or otherwise, who did not strictly conform to established American Medical Etiquette. He was ready to abide by the vote of the Society, and never under any circumstances meet with those persons.

Dr. Hayes agreed with Dr. Brown, and advocated not meeting or consulting with medical men who act unprofessionally. Dr. Chapman did not approve of making too much of the matter. Dr. Favill reprehended unprofessional conduct as much as any member. He criticised the American By-Laws on Etiquette, and though he entirely agreed with the Spirit of the law, he would not vote for not meeting with irregular practitioners under all circumstances. He could imagine a case which might cause him to ask the services of the gentleman particularly alluded to. Dr. Brown said that he would bring before the meeting any gentleman who would meet in consultation with those men.

The Secretary thought it best to record these matters as a reference to look to hereafter in order that the Society may remember these discussions which may be useful to the Society.

The name of the man referred to was not entered in the minutes of the meeting; but there was at that time a homeopathic physician in Madison who had "probably a larger practice than any other Madison physician."

November 6, 1858. No quorum. At the November 12 meeting Dr. Favill read an elaborate article on diet, from *Littell's Liv-*

ing Age disputing Liebig's theory. Dr. Carr made some remarks in defense of Liebig.

The following evening the Society met, by appointment, with Dr. Carr at the University. Accordingly Doctors Brown, Hayes, and Heath "called on Dr. Carr, who exhibited microscopic sections of longitudinal and transverse sections which showed the process of ossification, also that of nutrition by the haversian canals; the difference between cotton and flax fibers; frog's blood, etc." The exhibit did not interest, in 1858, a larger proportion of members of the Society than a similar exhibit would in 1937.

At the February 5, 1859, meeting a case of ophthalmia with effusion between the cornea and conjunctiva with granular lids was described by Dr. Hayes. The former was treated with calomel and opium so as to slightly affect the gums, and by a seton to the nape of the neck; the latter were rubbed with sulphate of copper; result—recovery.

On March 6, 1859, "a disputation took place on various matters appertaining to the profession." No meetings were recorded between March 6, 1859, and September 2, 1859, at which time the following officers were elected:

President: Dr. Brown.
Vice President: Dr. Hayes.
Treasurer: Dr. Favill.
Secretary: Dr. Heath.
Censors: Dr. Chapman, Dr. Favill, Dr. Heath.

As Dr. Chapman was leaving Madison for some time, a meeting was, at his suggestion, called for two weeks later. The meeting held September 16, according to the resolution of September 2, did not materialize on account of the absence of the president and other members.

At the November 5, 1859, meeting Dr. Chapman gave a verbal description of the anatomy of the teeth of various animals, comparing them with those of man. After some discussion by the members, the Society adjourned to meet December 2 at Dr. Favill's office. On December 2 "the Secretary [Dr. Heath] went to Dr. Favill's office—none of the members were present."

This completes the record of the first ten years of the Dane County Medical Society. During that time seventeen names were entered on the record book as members. At the end of ten years only seven appear as active members. The others were in Madison only one or two years. One member, Dr. Schue, died; and one member, Dr. Woodward, resigned. Six of the seven active members were officers of the Society in 1858. Dr. Hayes came to Madison in 1858, and Dr. Ward did not take a very active part in the young, but vigorous, Society.

The subjects discussed at the meetings show a varied but broad grasp of medical problems.

REFERENCES

Butterfield, C. W.: History of the University of Wisconsin, Madison, 1879.
Harris, Henry: California's Medical History, San Francisco, 1932.
Keenney, Mrs. W. L.: Personal Communication.
Miller, W. S.: Medical Schools in Wisconsin: Past and Present. Wisconsin M.J., 35:472–486 (June) 1936.
Sheldon, C. S.: In Madison Past and Present. Wisconsin State Journal Semi-Centennial, Madison, 1902.
Young, Miss Eleanor: Personal Communication.

Free use has been made, in the preparation of this sketch, of the record book of the Dane County Medical Society for the period 1850–1860. Other sources of information have been acknowledged in the text.

Proceedings of the Council

1. Call to Order

The Council was called to order in the English Room, Schroeder Hotel, Milwaukee, at 1:30 on Tuesday, September 14, 1937. The secretary presided vice Dr. Arthur W. Rogers, chairman of the Council, deceased.

2. Roll Call

The following were present: Councilors Pope, Johnson, Cunningham, Jegi, Lettenberger, Smith, Dean, Gavin (president), Butler, Heidner, and Duer; Past-president Carter, President-elect Sargent, Speaker Rector, Treasurer Sleyster, Gunnar Gundersen, delegate to the American Medical Association; A. E. McMahon, chairman of the Committee on Medical Economics; Theodore Wiprud, secretary of the Medical Society of Milwaukee County; R. L. MacCornack, member of State Board of Health and delegate from the Trempealeau–Jackson–Buffalo County Medical Society; C. A. Harper, State Health Officer, the secretary, and the assistant secretary.

3. **Election of Chairman**

The secretary formally announced the recent death of Dr. Arthur W. Rogers, Oconomowoc, and that this created a vacancy in the chairmanship of the Council, which would now be filled for the unexpired term ending in January, 1938. The secretary stated that to avoid all embarrassment in the nomination, slips of paper would be passed out and on these each might indicate his choice, and that the two highest would then be presented in a formal nomination. Treasurer Sleyster acted as teller during the proceedings and subsequently announced, after informal and formal ballot, that Dr. Stephen E. Gavin, Fond du Lac, was the choice of the Council. Doctor Gavin took the chair.

4. **Approval of Minutes**

It was moved by Lettenberger–Pope that the minutes of the January meeting of the Council as published in February, 1937, be approved. Carried.

5. **Approval of Mail Ballots**

Upon motion of Heidner–Lettenberger the mail ballot granting honorary membership to Dr. B. J. Bill, Genoa City, and commending him to the Board of Trustees of the American Medical Association for election to affiliate fellowship was confirmed.

By motion of Smith–Jegi the mail ballot authorizing the speaker to advance the hour of the meeting of the House of Delegates from 7:15 p.m. to 4:00 p.m. was confirmed.

6. **Report of Auditing Committee**

The Auditing Committee consisting of Pope, Smith, and Duer reported that they had viewed the separate audits of the treasurer, the secretary as secretary, and the secretary as managing editor of the Wisconsin Medical Journal for the calendar year 1936 and recommended that the Council accept and approve such audits. It was so moved by Pope–Johnson and carried unanimously.

7. **Life Memberships**

Upon motion of Cunningham–Dean the following qualified members were elected to life membership in the Society: Olaf M. Sattre, Rice Lake; Charles Zimmerman, Milwaukee; and John E. Meany, Manitowoc.

8. **Invitation to American Medical Association**

The secretary placed before the Council a communication from the Board of Trustees of the Medical Society of Milwaukee County asking the State Society to join in extending to the American Medical Association an invitation to hold its 1939 or 1940 meeting in Milwaukee, with the condition that the invitation be not extended for the centennial year of 1941. It was so moved by Lettenberger–Smith and carried.

9. **Treasurer's Report**

The treasurer's report to be given to the House of Delegates was submitted in typewritten form for the information of the councilors. It was then moved by Butler–Lettenberger that the Council authorize the treasurer to remove from the custodianship of the First Wisconsin Trust Company bonds of the face value of $6,000 for purpose of sale to meet deficit. The motion was carried unanimously.

10. **Approval of Film**

The secretary presented a communication from the American Committee on Maternal Welfare, Inc. in regard to approving a film for the lay public on the subject "The Birth of a Baby." After discussion it was moved by Cunningham–Pope that the secretary secure pertinent information from the American Medical Association, and, if they approve, the matter be presented at a subsequent meeting of the Council for viewing and approval.

11. **Representation on the Council from Milwaukee County**

The secretary presented to the Council the following resolution received from the Board of Trustees of the Medical Society of Milwaukee County:

> "WHEREAS, The Medical Society of Milwaukee County is represented on the Council of the State Medical Society by only one councilor although approximately one third of the membership of the State Society resides in Milwaukee County,
>
> "WHEREAS, Such representation is inadequate and not representative of the medical profession of Milwaukee County, and
>
> "WHEREAS, Rapidly changing conditions require that important decisions vitally affecting the profession of this State be made by the Council,
>
> "*Be it resolved*, That the Board of Directors of the Medical Society of Milwaukee County respectfully petitions the Council of the State Medical Society to give serious consideration to its recommendation that Milwaukee County be represented on the Council by two additional councilors, and, if in its considered judgment, it concurs with this position that it submit to the 1937 House of Delegates with its endorsement an amendment to the constitution of the State Medical Society embodying such provisions."

Following long discussion in which participants included Lettenberger, Sargent, Smith, Heidner, Cunningham, Rector, and Wiprud, it was moved by Dean–Heidner that the following communication be directed to the House of Delegates:

> "The Council, after long discussion on the subject matter of a resolution from the Medical Society of Milwaukee County, recommends to you adoption of the following motion:
>
> "'The speaker of the House of Delegates is hereby authorized to appoint from the delegates a committee of five to study reconstruction of the constitution and by-laws with reference to representation and election of councilors; that such committee report to the component county societies through the secretary of the State Society not less than ninety days prior to the

1938 annual meeting, with recommendations and proposed amendments, if any, so as to permit action thereon at the 1938 House of Delegates.' "

12. **Resolution from Trempealeau–Jackson–Buffalo County Society**

Dr. R. L. MacCornack, delegate of the society from Whitehall, presented to the Council a resolution on public health intended for presentation to the House of Delegates. The resolution was discussed by MacCornack, Jegi, Duer, and Lettenberger, but inasmuch as it was intended for the House no action was taken.

13. **State Health Officer**

Dr. C. A. Harper, state health officer, reported to the Council briefly concerning the status of communicable diseases in Wisconsin with particular reference to the subject of poliomyelitis.

14. **Book on Social Security**

The secretary presented a communication from Doctor Ochsner of Chicago, directed to the late chairman of the Council, offering to supply copies of his publication "Social Security" for the membership at a cost of fifteen cents per member. After discussion it was agreed that copies of this publication would be placed before the Council for the purpose of review.

15. **Examining Boards for Specialists**

The secretary reported to the Council the frequency with which the headquarters was called upon to place lists of qualified specialists before State official and nonofficial agencies and asked whether action was indicated now, effective at some future date, which would direct the secretary to confine such lists to those who had passed the respective examining boards recognized by the American Medical Association. After brief discussion it was the consensus of opinion that the proposal was premature.

16. **President-elect**

The president-elect discussed with the Council his statement intended for the House of Delegates.

17. **Adjournment**

The council adjourned at 3:50 p.m. to attend the first session of the House of Delegates.

J. G. Crownhart,
Secretary.

Approved:
Stephen E. Gavin, M. D.,
Chairman of Council.

Second Meeting

1. **Call to Order**

The second meeting of the Council was called to order by President Gavin in the Directors' Room, Milwaukee Auditorium, at twelve noon on Wednesday, September 15, 1937.

2. **Roll Call**

Roll call disclosed the following present: Councilors Jegi, Butler, Lettenberger, Johnson, Gavin (president), Smith, Pippin, Duer, Heidner, Dean, and Pope, retiring councilor Cunningham, Past-president Carter, Treasurer Sleyster, President-elect Sargent, Speaker Rector; Theodore Wiprud, secretary of the Medical Society of Milwaukee County, H. M. Camp, secretary of the Illinois State Medical Society, and the secretary.

3. **Proposal to Establish Dues**

The attention of the Council was directed to the fact that a reference committee of the House was to report as its recommendation that the exact amount of dues for the year 1938 be established by the Council. After discussion it was moved by Duer–Lettenberger that Doctor Smith of the Council be instructed to present to the House the unanimous view of the Council that dues should be established by the House and not referred to the Council. Carried unanimously.

4. **Secretary of Illinois State Medical Society**

The chairman presented to the Council Dr. Harold M. Camp, who addressed them on common problems.

5. **Greetings from Iowa**

The secretary announced to the Council that Dr. R. L. Parker, secretary of the Iowa State Medical Society, had been a visitor at the Hall of Health on Sunday and that he wished to extend to the Society his personal congratulations upon the success of this outstanding exhibit and best wishes for this meeting.

6. **Adjournment**

The Council adjourned at 1:45 p.m.

J. G. Crownhart,
Secretary.

Approved:
Stephen E. Gavin, M. D.,
Chairman of Council.

Medical Directories*

At the annual session of the House of Delegates of the American Medical Association in 1936, the following resolutions and report of the Judicial Council were adopted:

> Whereas, Certain commercial interests are publishing medical directories, listing physicians by specialty and otherwise, as available for insurance and compensation work, and other professional services; and

* Reprinted by permission of the Bureau of Medical Economics, American Medical Association. Copyright, 1937.

The Aseptic Surgical Field

● The basic requirement of modern surgery is asepsis. The choice of a suitable antiseptic is hardly less important than cleanliness and proper handling of instruments and supplies.

Bactericidal action may be obtained without undue tissue damage by the use of 'Merthiolate' (Sodium Ethyl Mercuri Thiosalicylate, Lilly). This antiseptic is suitable for all surgical indications and may be used to advantage in both clean and contaminated wounds.

Tincture 'Merthiolate,' an alcohol-acetone-aqueous solution, 1:1,000, is recommended for preoperative preparation of the intact skin.

Solution 'Merthiolate,' an isotonic aqueous dilution, is suggested for open wounds and for application in body cavities.

Supplied in four-ounce and one-pint bottles.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

WHEREAS, Participation by listing in these lay publications merely serves for the profit of the promoters, and is furthermore technically indirect solicitation of patients; therefore be it

Resolved, That the Arkansas Medical Society condemns these practices as unethical and forbids its members to continue listing their names in such directories; and be it further

Resolved, That the Arkansas Medical Society requests the House of Delegates of the American Medical Association to take similar action.

The Judicial Council in approving the resolutions and recommending adoption made the following report:

> The Judicial Council is of the opinion that most, if not all, of the directories, described in the resolutions condemning as unethical the listing of physicians by specialty in directories published by commercial concerns . . . are but subtle ways of avoiding the pronouncement of the Principles of Medical Ethics concerning solicitation of patients, under a guise of buying a directory when the real intent is the purchase of the publication of the buyer's name in the directory for the purpose of obtaining patients.

The issuance of a variety of medical directories by publishing companies, insurance bureaus, advertising agencies, "professional" bureaus, press bureaus, underwriters' bureaus and so on has been of doubtful value for many years. After the American Medical Association in 1909 began the publication of the American Medical Directory, there was no longer any place for another directory of physicians in the United States. Nevertheless, certain individuals who saw an opportunity for some commercial advantage have persisted in publishing medical directories and have developed ingenious methods to convince physicians that a listing in their directory is essential.

Many physicians can still remember the medical directories that were published before the American Medical Directory. A "pay as you enter" regulation was the guiding principle. Those who subscribed received special mention, and those who paid an additional amount received an extra special listing. In addition to the general directories there were "special" directories, which undertook to list physicians according to the several specialties in medical practice. Such a listing was necessarily an arbitrary one with little or no verification of the qualifications of those subscribing. There were also "insurance" directories, which listed physicians said to be particularly qualified for insurance medical service. Physicians listed in insurance directories were supposed to be given preference by insurance companies for appointments as insurance examiners. Other local directories simply contained the names of the "most prominent and outstanding professional men in the community." The publishers of these directories had few means of checking the accuracy and reliability of their listings, and it was not unusual to find undertakers and clergymen, as well as osteopaths, chiropractors and other cultists, listed as physicians. With the exception of insurance medical directories, the many medical directories that were once published are now of little consequence. The publishers of insurance medical directories, however, have been extremely active in securing physicians as subscribers.

Within the last few months, several state medical journals have once again called the attention of their readers to the fact that the sales of commercial medical directories are continuing and that physicians are still supporting the commercial directory racket. The Bureau of Medical Economics is receiving an increasing number of inquiries concerning insurance medical directories. Since the adoption of the resolution condemning such directories, twenty-six letters asking for information about only one of these directories have been received. Perhaps the sudden activity indicates the desire of salesmen to "clean up" before the market is closed forever.

There may have been some reasons why physicians once desired a listing in certain commercial directories. The specialty directories, bad as they were, did give those interested an accessible list of physicians according to type of practice. While insurance companies at one time might have used an insurance medical directory, it is now possible for them to secure competent physicians for their work without any commercial insurance medical directory. The directors of the medical departments of insurance companies have found that there is no real

MEDICAL LIBRARY SERVICE

UNIVERSITY OF WISCONSIN

SERVICE MEMORIAL INSTITUTE BLDG.

NORTH CHARTER STREET

MADISON, WISCONSIN

Dear Doctor:

You are cordially invited to enjoy the opportunities for study offered by the Medical Library Service of your State University.

The Medical Library Service places at the disposal of every doctor in the State the facilities of the Medical School Library, the Medical Library Service, and with some restrictions, the resources of any other library on the campus.

The Medical Library Service has available for loan all books which are reviewed in the Wisconsin Medical Journal.

The Medical Library Service will loan current issues of medical journals. Successive issues of the same journal will be sent regularly on request.

The Medical Library Service will select references on any subject, including books, periodicals, and reprints, and will loan them for a two weeks' period. It has as a basis for its reference work the *complete files of 325 medical journals,* many of which date back to the early 1800's.

The Medical Library Service makes no charge except mailing costs. Borrowers are asked to pay the postage and small wrapping fee (5¢ for journal packages and 10¢ for book packages). Special rates of 3¢ for the first pound, and 1¢ for each additional pound apply on library material.

The Medical Library Service gives prompt attention to all inquiries. It is the aim of the department to have material in the mail twenty-four hours after the request is received.

Make your needs known to us, and we shall be happy to serve you.

Sincerely yours,

Gladys Ramsey,
Librarian.

TOXOID

for Diphtheria Immunization

ACCEPTED AMERICAN MEDICAL ASSN

U.S.S.P. Co. Laboratories

Diphtheria Toxoid U.S.S.P. Co. Ramon is indicated to be used in all age groups. Immunity is usually established after two injections as evidenced by a negative Schick reaction.

Diphtheria Toxoid U.S.S.P. Co. Alum Precipitated is indicated for use especially in children up to 10 years of age. Immunity is usually established after one injection as evidenced by a negative Schick reaction.

SMALLPOX VACCINE

(green) Vaccine Virus

A potent virus for the production of an active immunity effective against smallpox.

Green Virus assures you of the greatest degree of sterility.

UNITED STATES USSP STANDARD PRODUCTS

U.S. STANDARD PRODUCTS CO.
WOODWORTH, WISCONSIN.

selection of physicians in such commercial directories and for that reason they employ independent methods to determine the qualifications of physicians as insurance medical examiners. Most insurance companies have learned that the physician who subscribes to these commercial lists may have no particular qualification for insurance services other than his willingness to have patients referred to him and his desire to collect a fee. Insurance appointments are usually made in the following manner: The director of the medical department consults the American Medical Directory for physicians who are members of the American Medical Association. Physicians who are not members are usually automatically excluded. The professional status of the physicians who are members is carefully examined into through consultation with the secretary of the county medical society. Other sources of information, of course, are consulted, but it is certain that all reputable insurance companies are aware of the inaccuracy of so-called insurance rating directories. They know that many of the physicians in such directories are the "backwash" of the medical profession.

Insurance medical directories, however, have a special appeal which probably explains their continued existence. Physicians are told that more than 2,000 insurance companies have united to select their examiners on the basis of those approved by the particular insurance medical directory. Young physicians are told that the insurance companies desire young men who can give proper attention to their insurance duties. Older physicians are told that insurance companies want some one in the community who has "experience and integrity." Prospective subscribers are shown letter-heads of a large number of physicians who are said to be subscribers. Others are told that all insurance examinations are to be centralized in the large cities and that unless physicians are certified by the particular directory they will receive no appointments. Physicians who are approved by the publishers of directories will receive a certificate indicating that they are acceptable by all insurance companies.

OFFICIAL POSITION

The payment of a fee by physicians for a listing of their names in an insurance medical directory has been condemned as unethical by the following action of the Judicial Council:

The Judicial Council is of the opinion that most, if not all, of the directories, described in the resolutions condemning as unethical the listing of physicians by specialty in directories published by commercial concerns . . . are but subtle ways of avoiding the pronouncement of the Principles of Medical Ethics concerning solicitation of patients, under a guise of buying a directory when the real intent is the purchase of the publication of the buyer's name in the directory for the purpose of obtaining patients.

The resolution which called for this action by the Judicial Council was adopted by the House of Delegates not only because the listing of physicians' names in insurance medical directories constitutes indirect solicitation of patients but also because such directories mainly serve the profits of the publishers and are of little benefit to physicians or to insurance companies.

Needless to say, the physician is promised a lucrative practice.

Even if the prospective subscriber is not "sold" on these statements, he nevertheless feels that he might incur a loss if he does not subscribe and other physicians do. Either that or the physician's lack of "sales resistance" overwhelms him.

Another sales device is to promise the physician that his certificate of appointment "as an official Registered Physician and Surgeon" will be "filed with more than two hundred casualty, life, accident, health and liability insurance companies doing business in the United States." Another promise to the physician is that he will be the only physician selected in his city. Still another is a contract, executed in duplicate, which stipulates that the subscribing physician will be the sole representative in the county—both contracts, however, must be returned to the publishing company.

The real reason prompting the publication of an insurance medical directory is shown by the following simple arithmetic:[1] One directory contains the names of 5,000 phy-

[1] Insurance Medical Directories, J. Arkansas M. Soc. 23: 41 (July) 1936.

for sick as well as normal babies
Dextri-Maltose, Carbohydrate of Choice

In gastrointestinal disorders, "Dextri-maltose has been preferred to the other sugars as apparently less irritating."—*E. Cassie and U. Cox: The examination of the gastric contents in infants, with some considerations as to the value of lactic acid milk in infant feeding, Lancet, 2:322-325, August 14, 1926.*

"As to the kind of extra carhohydrate to be added, whether lactose or maltose, I believe dextri-maltose to he hetter in general in cases of fat indigestion (infantile atrophy)."—*C. H. Dunn: The Hygienic and Medical Treatment of Children, Southworth Co., Troy, New York, 1917, V. 1, p. 418.*

In the treatment of decomposition, "The period of repair may he shortened hy giving suitable additional food; the hest, probably, heing huttermilk to which carefully regulated proportions of dextrin and maltose preparations or malt soup are added."—*E. Feer: Text-Book of Pediatrics, J. B. Lippincott Co., Phila., 1922, p. 284.*

In infantile atrophy, "The carhohydrate sbould be increased hy gradual addition of dextrimaltose.

"Malt soup or dextrimaltose (Mead's) should be added in teaspoonful or more doses to each feeding until the point of carhohydrate tolerance is reached."—*L. Fischer: Diseases of Infancy and Childhood, F. A. Davis Co., Phila., 1925, V. 1, p. 285.*

In the case of a premature infant, "Dried milk witb water was given, which later was changed to whole milk, 14 ounces; water, seven ounces, and dextri-maltose No. 1, one and one-half ounces. Seven feedings of three ounces each every three hours was given. The ahove feeding was retained. The infant gained eight ounces at the end of the first week."—*L. Fischer: Clinical notes in a series of prenature infants, Arch. Pediat. 44:227-231, April, 1927.*

In the treatment of decomposition, "As a rule it is hest to start with 2 to 2½ or 3 ounces of albumin milk to the pound weight in 24 hours; the sugar to he added is in the form of a maltose-dextrin mixture. One should never delay too long in adding this."—*C. G. Grulee: Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 265.*

With reference to hypotrophy, "In mild cases, the addition of dextrimaltose instead of cane or milk sugar may he sufficient to obtain a gain in weight."—*C. Herrman: The treatment of nutritional disorders in artificially-fed infants, New York M. J. 114:158-160, August, 1921.*

In athrepsia, "The carhohydrates are usually added in a slowly fermentable form, such as the maltose and dextrin compounds, which are usually started hy the addition of four grams per kilogram (1/15 ounce per pound) and increased until eight grams or more per kilogram (¼ ounce per pound) of hody weight are added."—*J. H. Hess: Feeding and the Nutritional Disorders in Infancy and Childhood, F. A. Davis Co., Phila., 1928, p. 278.*

Concerning the treatment of marasmus, "When the stools have hecome smooth and salve-like, carbohydrate, in the form of dextrimaltose, may be gradually added up to the limit of tolerance."—*L. W. Hill: Practical Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 281.*

In the feeding of prematures, "As soon as there is a hesitation in the gain in weight, dextrimaltose No. 1 is substituted for the dextrose, in the same amount in the mixture, with almost invariahly a gain in weight."—*F. B. Jacobs: Relation of irradiated food substances and ergosterol versus cod liver oil in childhood nutrition, Pennsylvania M. J. 35:164-167, Dec., 1931.*

"A spasmophilic haby on hottle feeding should receive a limited amount of milk—a pint, or at the most 24 ounces in the 24 hours—to which cereal gruel and some form of sugar is added, preferably one of the malt dextrin preparations; also the early addition of other foods than milk to the baby's diet."—*M. Jampolis: Infantile spasmophilia, Interstate M. J. 25:652, Sept., 1918; abst. Arch. Pediat. 35:691, Nov., 1918.*

In cases of malnutrition and indigestion, "The appetite improves rapidly, and the stools soon hecome normal in appearance, if the sugars are intelligently prescribed. By this I refer to proper proportions of dextrin and maltose. When there is a tendency to looseness, I have used the preparation known as 'dextri-maltose,' for the extra carbohydrates; . . ."—*M. Ladd: Further experience with homogenized olive oil mixtures. Arch. Pediat., 33:501-512, July, 1916.*

In pyloric stenosis, "With low dextrose tolerance, a maltose dextrin preparation may be added in whole or in part. Even where the dextrose is well tolerated and gain in weight has ceased, impetus to the weight ontake may he given by the addition of a maltose dextrin preparation."—*D. J. Levy: Pyloric stenosis and pylorospasm of infancy with especial reference to medical treatment, J. Michigan St. M. S., 21:166-170, April, 1922.*

With reference to the treatment of diarrhea, "After several days, 2% to 3% of a maltose-dextrin preparation may be added (Dextri-Maltose). This is preferahle to the easily fermentahle lactose or cane sugar."—*F. Lust: The Treatment of Children's Diseases, J. B. Lippincott Co., Phila., 1930, p. 145.*

In dyspepsia, "The carbohydrate must not he allowed to exceed 3 per cent. Dextri-maltose is the most suitahle sugar."

In the treatment of decomposition (atrophy, malnutrition, marasmus), ". . . when there has been obvious improvement, dextri-maltose is gradually increased from 3 to 5 per cent."—*B. Myers: The nutritional disturbances of infancy, Brit. M. J., 1:1079-1083, June 21, 1924.*

"The treatment of artificially fed children in the first of these groups consists in putting them on a low fat dietary, and giving them carbohydrate in the form of one of the less fermentahle sugars—e.g., dextrimaltose."—*L. G. Parsons: Wasting disorders of early infancy, Lancet, 1:687-694, April 5, 1924.*

In the milder cases of inanition, "Regulation of this disturbed organismal halance is ohtained by the addition of carhohydrates, while fat and casein are reduced. For this purpose dextrimaltose and flour are hetter than the ordinary sugars, since they are more slowly ahsorhed and have greater efficacy in their powers of controlling the flora in the large intestine."—*W. J. Pearson and W. G. Wyllie: Recent Advances in Diseases of Children, P. Blakiston's Son & Co., Phila., 1930, p. 116.*

In intestinal intoxication, "I have had more experience with dried skimmed milk in which 2 to 5 per cent dextrimaltose, harley or rice flour has heen cooked, and the mixture subsequently fermented by lactic acid bacilli or soured with lactic acid, than with any other food except protein milk."—*G. F. Powers: A comprehensive plan of treatment for the so-called intestinal intoxication of infants, Am. J. Dis. Child., 32:232-257, August, 1926.*

Regarding the treatment of the marantic infant, "After the intolerance to sugar has heen overcome a carbohydrate, preferahly Dextri-maltose, may be added."—*C. S. Raue: Diseases of Children, Boericke & Tafel, Phila., 1922, p. 427.*

In spasmophilia, "Dextri maltose is the hest sugar to use in these cases, in the proportion of 6 to 8 per cent."—*J. H. Reading, Jr.: Spasmophilia, Hahneman. Monthly, pp. 403-411, July, 1922.*

In the treatment of atrophy, "If the baby continues to improve, the next step in the treatment is to add to the milk one of the less fermentahle carhohydrates, such as dextrimaltose; . . ."—*H. Thursfield and D. Paterson: Diseases of Children, William Wood & Co., 1929, p. 105.*

"I also find dextrin-maltose an excellent addition to alhumin-milk when the first object of that food has been achieved and a gain in weight is desired; in this way I have succeeded in feeding albumin-milk far beyond the period usually advised, with highly gratifying results."—*F. L. Wachenheim: Infant-Feeding; Its Principles and Practice, Lea & Febiger, Phila., 1915, p. 158.*

"Dextri-maltose has been substituted for lactose not infrequently, when the tolerance for the latter continues low."—*J. H. West: Low fat, high starch evaporated milk feeding for the marasmic baby, Arch. Pediat. 48:189-193, March, 1931.*

"Malt sugar is indicated when others fail to produce a sufficient gain, or when malassimilation of fat is evident."—*O. H. Wilson: The role of carbohydrates in infant feeding, Southern M. J. 11:177, March, 1918; abst. Arch. Pediat. 35:447, July, 1918.*

MEAD JOHNSON & COMPANY, Evansville, Indiana, U.S.A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons

sicians. The fee charged for a listing in this directory is $15 each year, which gives an income of $75,000. A liberal estimate of the cost of publication and distribution is $15,000. The promoter of the directory and the solicitors divide the remaining $60,000. One promoter adroitly states that the directory goes direct to insurance companies only, and therefore the physician will receive a press proof of his registration and listing. There is then no necessity for publishing the directory.

The American Medical Directory is a monumental work, calling for the cooperation of thousands of individuals, societies, licensing boards, medical colleges and other organizations. It is inconceivable that any publishing agency could or would attempt the publication of a similar directory. Losses are incurred each year, and for the Thirteenth Edition (1934) the loss amounted to $33,000. Listings in the American Medical Directory according to specialties are based on the physician's declaration of his qualifications, which are checked against his medical education and membership in special societies. An additional feature in the 1936 directory is a key number showing that the physician has been certified as a specialist by an approved examining board. Boards for the qualifying and certifying of specialists in the different specialties have been approved for five specialties. Similar boards have been established in seven other specialties. The fact that a physician has passed the examination of one of these boards is at present the most exact criterion of the qualification of a specialist. In a like manner, all the information contained in the more than 2,000 pages of the American Medical Directory is as authentic and accurate as is humanly possible. Any insurance company, special agency, county medical society, community, or any person desiring a directory of the physicians in a locality can have the wholehearted cooperation of the Directory Department of the American Medical Association.

Despite the preeminence of the American Medical Directory, and despite the resolution condemning the listing in commercial directories as unethical, physicians are continuing to pay from $10 to $75 each for the insertion of their names in commercial directories. After the clear disavowal of commercial medical directories by the medical profession, if individual physicians are still victimized by salesmen for such directories they deserve the title "Public Easy Mark No. 1."

The Journal Bookshelf

BOOKS RECEIVED FOR REVIEW

Materia Medica, Pharmacology, Therapeutics, and Prescription Writing. By Walter A. Bastedo, Ph. M., M.D., Sc. D., F.A.C.P., consulting physician, St. Luke's Hospital, New York, St. Vincent's Hospital, Staten Island, and the Staten Island Hospital; president, United States Pharmacopoeial Convention 1930–1940; member Revision Committee U. S. Pharmacopoeia. Formerly curator of the New York Botanical Garden, attending physician, City Hospital, New York, instructor in pharmacology, Cornell University, associate in pharmacology and therapeutics, and assistant clinical professor of medicine, Columbia University. Fourth edition, reset; 778 pages with 81 illustrations. Price, cloth, $6.50, Philadelphia and London: W. B. Saunders Company, 1937.

Emotional Adjustment in Marriage. By Le Mon Clark, M.S., M.D., assistant in obstetrics and gynecology, University of Illinois College of Medicine. Price $3.00. St. Louis: The C. V. Mosby Company, 1937.

Physical Therapy in Arthritis. By Frank H. Krusen, M.D., associate professor of physical medicine, The Mayo Foundation, University of Minnesota; head of the section on physical therapy, The Mayo Clinic. Foreward by Melvin S. Henderson, M.D. With 21 illustrations. Price $2.25. New York: Paul B. Hoeber, Inc., 1937.

Medical Bacteriology, and Clinical Parasitology. By M. Fernan-Nunez, M.D., F.A.S.C.P., professor of pathology and bacteriology, Marquette University School of Medicine; former medical director, Colombia Syndicate Hospital, Barranquilla, Colombia, South America; Fellow, Royal Society of Tropical Medicine, London, etc. Price $2. Milwaukee: Marquette University Press, 1937.

A Textbook of Medicine. By American Authors. Editor, Russell L. Cecil, A. B., M.D., Sc. D., pro-

THE FIRST *Sniffle*

IN the very first stages of a cold, as well as during its course, Neo-Synephrin Hydrochloride may be indicated to relieve the nasal engorgement and promote free breathing.

PROLONGED ACTION

Neo-Synephrin has a vasoconstrictive action which is more sustained than that of epinephrine or ephedrine and, therefore, it can be applied at less frequent intervals.

NO STING

An additional advantage is the absence of sting at point of application.

LOW TOXICITY

In therapeutic dosage, Neo-Synephrin is less toxic than either epinephrine or ephedrine.

STABLE

Neo-Synephrin is so stable that it may be sterilized by boiling.

NO REACTIONS

In the doses recommended, Neo-Synephrin does not usually produce "nervousness" or insomnia.

A PRESCRIPTION PRODUCT

Neo-Synephrin is promoted only through professional channels, and the label may be removed by the druggist before dispensing.

NEO-SYNEPHRIN
HYDROCHLORIDE

(levo-meta-methylaminoethanolphenol hydrochloride)

3 DOSAGE FORMS

EMULSION

¼% (1-oz. bottle with dropper)

SOLUTION

¼% for dropper or spray
1% for resistant cases
(1-oz. bottle)

JELLY

½% (in collapsible tubes with applicator)

FREDERICK STEARNS & COMPANY

DETROIT NEW YORK KANSAS CITY SAN FRANCISCO WINDSOR, CANADA SYDNEY, AUSTRALIA

fessor of clinical medicine, Cornell University Medical College; associate attending physician, New York Hospital, New York City. Associate editor for Diseases of the Nervous System: Foster Kennedy, M.D., F.R.S.E., professor of neurology, Cornell University Medical College; director, department of neurology, Bellevue Hospital, New York City. Fourth edition, revised and entirely reset; 1614 pages with 42 illustrations. Price, cloth, $9. Philadelphia and London: W. B. Saunders Company, 1937.

The Business Side of Medical Practice. By Theodore Wiprud, executive secretary of The Medical Society of Milwaukee County; lecturer in medical economics at the Marquette University School of Medicine. One hundred seventy-seven pages with 21 illustrations. Price, cloth, $2.50 net. Philadelphia and London: W. B. Saunders Company, 1937.

The Traffic in Health. By Charles Solomon, M.D., assistant clinical professor of medicine, Long Island College of Medicine; lecturer in materia medica, Training School for Nurses, Jewish Hospital of Brooklyn; author of Pharmacology, Materia Medica and Therapeutics, Prescription Writing and Formulary—The Art of Prescribing. Price $2.75. New York: Navarre Publishing Company, Inc., 1937.

Synopsis of Genitourinary Diseases. By Austin I. Dodson, M.D., F.A.C.S., professor of genitourinary surgery, Medical College of Virginia; genitourinary surgeon to the hospital division, Medical College of Virginia; genitourinary surgeon to Crippled Children's Hospital; urologist to St. Elizabeth's Hospital; urologist to St. Luke's Hospital and McGuire Clinic. Second edition; 294 pages with 112 illustrations. Price $3. St. Louis: The C. V. Mosby Company, 1937.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, S. M. I. Building, Madison, Wis.

The Business Side of Medical Practice: By Theodore Wiprud, executive secretary of the Medical Society of Milwaukee County, lecturer in medical economics at the Marquette University School of Medicine. Foreword by Morris Fishbein, M. D., editor, Journal of the American Medical Association. Philadelphia: W. B. Saunders, 1937.

The successful practice of medicine means more than the knowledge required to diagnose and treat disease. It means the ability to treat people as well. It means the maintenance of an office, and all that goes with it. It means the development of a system for regulating the business side of practice in such a manner as to allow the physician to maintain his place in society. All of us have seen medical men, well prepared in the science of medicine, who have been miserable failures in applying their knowledge in actual practice.

Mr. Wiprud, author of this book, is well known to Wisconsin physicians, as a sound and experienced business man, an executive for a group of practicing doctors, and as an executive secretary of the largest county medical society in the State. He has been intimately associated with physicians in both city and rural practice for sixteen years, and he brings to the profession, in this work, the observations of a trained business man thoroughly familiar with every detail of medical practice.

The work presents such chapters as: Personal Efficiency, Office Management, Necessary Financial Records, Case Records and Filing, Proper Handling of Patients' Accounts, Doctors' Bills and the Law, The Charity Patient, Investments, Wills and Estates, The Doctor in Court, Preparation of a Manuscript, Public Speaking, Relations with the Press, The Doctor and Public Affairs, On Conducting a Meeting, Fair Competition Among Physicians, and Building a Practice.

The book is prepared to aid the practicing physician in meeting the hundreds of problems involved in the practice of medicine not usually covered in his college course. It is sound, it is practical, and it will be found invaluable to any physician in private practice. R.S.

A Textbook of Surgical Nursing. By Henry S. Brookes, Jr., M. D., instructor in clinical surgery, Washington University School of Medicine; surgeon to the out-patients, Washington University Dispensary. Price $3.50. St. Louis: The C. V. Mosby Company, 1937.

This interesting new book has been recently published for use in schools of nursing. The book was written by Dr. Henry S. Brookes, Jr., of Washington University School of Medicine. His advisers and collaborators for parts of the book were Dr. H. S. Crossen for gynecologic surgery, Dr. T. P. Brookes for orthopedic surgery, Dr. E. A. Graham for chest surgery, and Dr. Ernest Sachs for neurologic surgery. Suggestions and criticisms were offered by nursing instructors, Miss Elsie Barnard and Mrs. Josephine Heys, of Barnes Hospital, and Miss Barbara Hartman of Washington University School of Nursing.

The aim of this book is "to present surgical conditions and methods of surgical and nursing care and to assist in coordinating activities of nurse and physician to the best interests of patient, nurse, and physician." For the most part this aim seems to have been followed well. Many phases of surgery and surgical nursing have been included. While the treatment of each special division of surgery is brief, it is clear and authoritative, and will form an excellent foundation for further study.

Some interesting and helpful additions to the study of surgical conditions and treatment are the chapter of medicolegal points and a five-page glossary of surgical and medical terms.

LOWER MORTALITY
QUICKER RECOVERY

Reduction in mortality, quicker recovery, and lowered incidence of complications have followed use of Meningococcus Antitoxin, P. D. & Co., in epidemic (meningococcic) meningitis. The reduction in mortality has, in certain series, approximated fifty per cent.

Meningococcus Antitoxin can be given intravenously, intramuscularly, and intraspinally. Experience indicates that the intravenous route is the most rapidly effective and that it should be used initially; intraspinal and intramuscular injections, supplementing intravenous administration, to be made when conditions so indicate.

Meningococcus Antitoxin was developed in the Research Laboratories of Parke, Davis & Company, and was introduced to the medical profession in 1934. It is supplied in containers with diaphragm stopper at each end, each container holding approximately 30 cc. and representing at least 10,000 units.

PARKE, DAVIS & COMPANY

THE WORLD'S LARGEST MAKERS OF PHARMACEUTICAL AND BIOLOGICAL PRODUCTS

Techniques rather than principles are mainly emphasized. The preventive aspects are frequently neglected. The nursing procedures are based on those in use in Barnes Hospital.

Over two hundred illustrations are included. These are frequently more interesting from a surgical than from a nursing point of view.

The material is readable. The book is of a good size—six hundred pages—and is clearly printed on smooth paper. The style is clear, concise, and definite.

While the book is inclined at times to be more complete as to medical and surgical care than to nursing care; and while it covers a very broad field in a necessarily incomplete way, nevertheless it should prove to be a very interesting and helpful book for use of teachers and students of surgical nursing. G. J. K.

An Introduction to Dermatology. By R. L. Sutton, M. D., professor of dermatology, University of Kansas School of Medicine, and R. L. Sutton, Jr., M. D., instructor in dermatology, University of Kansas School of Medicine. Third edition. Price $5. St. Louis: The C. V. Mosby Company, 1937.

The third edition of this test is a much improved work. The subject matter as a whole has been partially reclassified and written with emphasis on the clinical features, differential diagnoses and treatment. Short descriptions of a number of the so-called newer diseases have been included and many new photographs added. In spite of its increased size, the text retains its intended place as a book which medical students may use to their advantage. R. L. M.

Dextrose Therapy in Everyday Practice. A Survey of the Literature, 1900–1936 on the Experimental and Clinical Studies Applicable to Medicine and Surgery. By E. Martin, Sc. D., New York. Price $3. New York: Paul B. Hoeber, Inc., 1937.

This book, clearly written, well printed with good illustrations and well bound, is an excellent publication. As is stated in the title, the work is a survey of the literature from 1900 to 1936 regarding dextrose therapy, and the bibliography is extensive with more than 2,000 references.

The organization is good. The first three chapters deal with chemical and physiological aspects. This is the most interesting part of the book and can be read with profit by both the pure scientist and the clinician. Subsequent chapters consider the use of dextrose in various diseases, alimentary deficiency, metabolic, allergic, infectious, cardiac, urinary, nervous, surgical and in pregnancy. The final chapter is reserved for discussion of various modes of administration of dextrose.

Much information is drawn together and a valuable reference work is now available. In the main the author has not attempted to offer his own conclusions in controversial matters. He is a doctor of science and has not been critical of certain therapeutic recommendations that have been made; it will be wise for the clinician to be so. With this in mind this book can be highly recommended to clinicians and students interested in a thorough knowledge of modern aspects of dextrose therapy. O. O. M.

Pathology. By E. B. Krumbhaar, M. D., professor of pathology, University of Pennsylvania School of Medicine. Price $2. New York: Paul B. Hoeber, Inc.

The author states in the preface that this is a primer of the history of pathology, and, as a pocket-size review of that subject, it fulfills its function very well. The development of pathology as a specialty is traced from the earliest times to the present. Especially worthy of favorable comment are two features; namely, a history of the conception of inflammation and cancer in Chapter VIII and a chronological list of pathologic milestones covering the subject from 2160 B.C. to 1935 A.D. G. R.

Rose and Carless Manual of Surgery. American (Fifteenth) Edition. Edited by W. T. Coughlin, M.D., professor of surgery and director of the department of surgery, St. Louis University School of Medicine, St. Louis. From the Fifteenth English Edition by Cecil P. Wakeley, D. Sc., senior surgeon, King's College Hospital, London; and John B. Hunter, M. C., surgeon, King's College Hospital, London. Baltimore: William Wood and Company, 1937.

The value of this volume has been enhanced by the addition of new chapters and illustrations. Almost every surgical condition is touched upon, but in some instances perhaps too briefly. Operative technic is frequently described in detail. This is often at the expense of more detailed description of laboratory and diagnostic procedures. References and bibliographies are conspicuous by their absence. This text is probably more valuable to a general surgeon than as a textook for the medical student. J. W. G.

The Basis of Clinical Neurology. By Samuel Brock, M.D., associate professor of neurology, College of Medicine, New York University. Price $4.75. Baltimore: William Wood and Company, 1937.

Brock follows in the footsteps of Cobb (A Preface to Nervous Disease—reviewed in this journal Nov. 1936) in his effort at integration of the nervous system and the functions is subserves. But whereas Cobb's work is an introduction to the study of the diseased nervous system, dealing with larger aspects of functional neurology, Brock on the other hand presents a systematic review of each functional level of nervous integration describing the anatomical relationships, interpreting the physiological activities and relating both to clinical symptomatology.

This book should be a treasure to the medical student, taking its place on his reference shelf beside Ranson's Anatomy of the Nervous System and Cobb's A Preface to Nervous Disease. While it should be particularly useful to the medical student, it also will be of value to the physician interested in reviewing the anatomical and physiological

CANNED FOODS IN THE CONTROL OF LATENT AVITAMINOSIS C

• The identification of cevitamic acid (1-ascorbic acid) as vitamin C served as a direct stimulus for the intensive study of the multiple problems involved in determining the human requirement for this factor. As a result of much extensive work, there have been developed three methods for estimating the intake or store of vitamin C in the body.

The "retention or saturation" test is carried out by administering a massive dose of vitamin C and determining the amount excreted in the urine in a given time (1).

As a second method, the daily excretion of vitamin C in the urine is considered indicative of adequacy of the intake (2).

A third method is the determination of the amount of vitamin C in the blood plasma or serum (3).

These tests have been combined in balance studies and may serve as valuable checks in the diagnosis of latent scurvy, when used separately or in conjunction with the less specific capillary resistance test (4).

Evidence is accumulating from the application of these tests which confirms the older view that acute cases of scurvy are rare in this country. However, this evidence does indicate rather wide occurrence of the subclinical forms of scurvy (5).

Correction of this condition is largely a matter of modification of the diet to include more liberal quantities of the fruits and vegetables which are known to be good sources of vitamin C. Recent reports indicate that vitamin C in such fruits and vegetables is afforded a good degree of protection during modern canning operations (6).

Since they are available at all seasons on practically every American market, these canned foods afford a valuable and economical means of controlling latent avitaminosis C.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) 1935. The Lancet 228-I, 71
(2) 1936. Am. J. Med. Sci., 191, 319
(3) 1935. Proc. Soc. Exper. Biol. & Med., 32, 1930
(4) 1933. J. Lab. & Clin. Med. 18, 484
(5) 1937. The Avitaminoses Eddy and Dahldorff William and Wilkins Baltimore
(6) 1936. J. Nutr. 12, 405
1936. Ibid. 11,383
1935. Am. J. Pub. Health 25, 1340

This is the thirtieth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

aspects of neurologic conditions and in understanding the vegetative components of general medical problems. It should receive the hearty support of teachers of neurology. M. G. M.

The Principles and Practice of Clinical Psychiatry. By Morris Braude, M.D., associate clinical professor of psychiatry, Rush Medical College, The University of Chicago; attending psychiatrist, Cook County Psychopathic Hospital, Chicago. Philadelphia: P. Blakiston's Son and Company, Inc., 1937.

This book is to be highly recommended to the beginner. It is simple, concise and well organized. The author takes into consideration a number of subjects which the ordinary textbook does not handle, such as various types of mental disturbances associated with pernicious anemia, lead encephalopathy, carbon monoxide poisoning, etc. The only omission that appears surprising is that the author fails to have any discussion of the questions of homosexuality and masturbation, but is content merely to mention these by name. However, on the whole, the book is well organized and highly to be recommended as an introduction to an extremely complicated subject. A. C. W.

ELBOW FRACTURES

(Continued from page 915)

much muscle has died and permanent damage has been done.

If at the time of reduction there is considerable swelling at the elbow, or if, after reduction and fixation of the arm in flexion, pain, increasing tense swelling, and cyanosis develop, the degree of flexion should be reduced. The arm should be brought down to a position where circulation is restored. As a rule, the right angle at the elbow with the arm in overhead traction will suffice. No attention is paid to the position of the fragments, for a much more serious complication must be dealt with. Gross displacement of fragments, as a rule, will not occur.

If after one or two hours the circulation does not improve and swelling and cyanosis increase, there is one last procedure which, if performed early enough, will relieve the ischemia and prevent any further damage. This procedure consists of incising the closed fascial spaces. Usually this is done at the anterior mesial aspect of the upper forearm or at any other point where the tension seems most marked. This will relieve the tension within the fascial planes. One can incise through skin and all, or, with a tenotomy knife, make multiple punctures through the skin and fascia, sweeping the blade in either direction to incise the fascia. If the skin is incised, it will be difficult to close. Following this procedure, the arm is placed at right angles with overhead traction. If, in the meantime, position of fragments has been lost, secondary reduction may be done within five to seven days.

Following this early stage, if nothing is done, the arm begins to feel hard, brawny and indurated; the fingers are held flexed; blebs and areas of pressure necrosis appear on the skin.

Following this, the muscles become flabby, but remain tender, and the fingers are lifeless as far as motion is concerned. Fibrous tissue is deposited, replacing the dead muscle cells. The arm begins to show signs of muscle atrophy. Scar tissue develops, which later contracts, and the typical "clawhand" deformity appears. This deformity is permanent.

If the arm is seen after the initial ischemic stage and there is beginning contracture of the flexor muscles due to myositis, the forearm and hand should be placed in a cock-up splint with the fingers also hyperextended. This must be maintained for several months.

Summary

1. The most important fractures at the elbow joint in children are those involving the lower end of the humerus.

2. There are several types of fracture involving this region and each type presents its own problem in diagnosis, complications and method of treatment.

3. Fractures of the internal epicondyle and the lateral condyle and capitellum as a rule require open reduction.

4. Supracondylar fractures are associated with more soft tissue damage than are the other fractures at the elbow. They should be treated as surgical emergencies. Reduction is obtained with the elbow hyperextended. Flexion is used to maintain position of reduced fragments.

5. Volkmann's ischemic contracture is the most serious complication of elbow fractures. It is the result of an ischemic myositis of the flexor muscles of the forearm and can almost always, if not always, be prevented by close observation and timely intervention.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

Send for application for membership in these purely professional Associations

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Since 1912

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter

Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen and silk. Washable as underwear. Booklet shows three different "types" and many variations of each.

Picture Shows "Type N"

For Ptosis, Hernia, Pregnancy, Obesity, Relaxed Sacroiliac Articulations, High and Low Operations, etc.

Each Belt Made to Order. Ask for literature

Katherine L. Storm, M. D.

Originator, Owner and Maker

1701 Diamond Street Philadelphia, Pa.

WHAT 3 REASONS MAKE Cocomalt HELPFUL TO *Pregnant Women?*

FIRST, Cocomalt is a rich source of the Calcium and Phosphorus so important in the diet of the prospective mother. Because each ounce of Cocomalt—enough for one serving—has been fortified with *extra* Calcium and Phosphorus, an 8-oz. glass of Cocomalt and milk actually provides .39 gram of Calcium, .33 gram of Phosphorus. But more. To aid in the utilization of these food-minerals, each ounce of Cocomalt also contains 81 U.S.P. Units of Vitamin D, derived from natural oils and biologically tested for potency.

Second, leading authorities agree that 3 glasses of Cocomalt a day supply the normal patient's daily optimum requirement of Iron...since there are 5 milligrams of effective Iron, biologically tested for assimilation, in each ounce of Cocomalt.

Third, the creamy, delicious taste of Cocomalt appeals to even the "fussiest" patient. Thus, in this *protective food,* patients can "drink" important food essentials lacking or deficient in the average diet.

Cocomalt may be prescribed either Hot or Cold. The economical 5-lb. hospital size and the ½-lb. and 1-lb. purity-sealed cans of Cocomalt can be bought at drug and grocery stores everywhere.

Cocomalt is the registered trade-mark of R. B. Davis Co., Hoboken, N. J.

	1 Ounce of Cocomalt adds	1 Glass of Milk (8 Liquid Ozs.) contains	Result† 1 Glass of Cocomalt and milk contains
†IRON	0.005 GRAM	*TRACE	0.005 GRAM
†VITAMIN D	81 U.S.P. UNITS	*SMALL AMOUNT; VARIABLE	81 U.S.P. UNITS
†CALCIUM	0.15 GRAM	0.24 GRAM	0.39 GRAM
†PHOSPHORUS	0.16 "	0.17 "	0.33 "
PROTEIN	4.00 GRAMS	7.92 GRAMS	11.92 GRAMS
FAT	1.25 "	8.53 "	9.78 "
CARBOHYDRATES	21.50 "	10.97 "	32.47 "

* *Normally Iron and Vitamin D are present in Milk in only very small and variable amounts.*

† *Cocomalt, the protective food drink,* is fortified *with these amounts of Calcium, Phosphorus, Iron and Vitamin D.*

FREE: TO ALL DOCTORS

R. B. Davis Co., Hoboken, N. J., Dept. ZZ-11
Please send me a free trial can of Cocomalt.
Doctor_____
Street and Number_____
City_____ State_____

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE—Very desirable unopposed practice in small town, good drawing territory from rich farming community, roads open all year, high school, open hospitals near, good living from the start. Low price for completely furnished steam-heated office ready to do business. Write quickly for particulars. Address replies to No. 1 in care of Journal.

FOR SALE—Home and office with separate entrance. Partly furnished if desired. Office furniture steel enameled. Northeastern Wisconsin. Twin city population about 30,000. Splendid schools and churches. Hospital facilities available to an able and well-trained man. Terms to suit given on good security. Fifty years in practice. Must retire on account of failing heart. Address T. J. Redelings, M. D., Marinette, Wisconsin.

FOR SALE—Unopposed practice and office equipment in Redgranite, Wisconsin. Good hospital nearby. Several small villages surrounding that have no physician. Reason for leaving: I desire to take up further studies. Communicate with T. V. Niemann, M. D., Redgranite, Wisconsin.

FOR SALE—Long-established eye, ear, nose and throat practice in downtown Milwaukee. Willing to introduce. Address No. 4 in care of Journal.

EQUIPMENT FOR SALE—High-tension, 16-plate static machine; Fischer diathermy; portable General Electric x-ray with tube; Burdick electric cabinet, direct current; 10-inch x-ray with remote control. Write Dr. Philip Eisenberg, 606 West Wisconsin Avenue, Milwaukee.

WANTED—Assistant in general practice in a town of 1,000 in central Wisconsin. Young man with some practical experience preferred. Address replies to No. 2 in care of Journal.

ASSISTANT WANTED in general practice with opportunity to assist in surgery. Prefer unmarried man. Guaranteed income. Location in southern Wisconsin. Address replies to No. 96 in care of Journal.

WANTED—General practitioner to associate with and share an attractive downtown office suite with an established eye, ear, nose, and throat specialist in Milwaukee. Would prefer one who desired to work into this specialty in the future. Address replies to No. 72 in care of Journal.

WANTED—One or two additional specialists to share an excellently equipped and furnished suite in a Milwaukee downtown office building. Secretarial, x-ray, and laboratory facilities provided. Address replies to No. 59 in care of the Journal.

WANTED—Resident physician in high-rated Milwaukee hospital. Attractive salary. Address replies to No. 3 in care of Journal.

LOCATION AVAILABLE—Splendid opportunity for practicing physician. Three rooms with joint waiting room with dentist. Newly decorated. Business and residential neighborhood. Large territory with no competition. Physician who vacated to go to downtown location; occupied same offices for ten years. Reasonable rent. Address replies to No. 5 in care of Journal.

WANTED—Assistant to general practitioner in northern Wisconsin. Excellent hospital facilities. Guaranteed income. Catholic preferred. Address replies to No. 99 in care of Journal.

A.M.A. SESSION

SAN FRANCISCO

June 13-17, 1938

•

For Hotel Reservations Write
DR. F. C. WARNSHUIS
Suite 2004
450 Sutter Street
San Francisco, California

•

Give names in party, type of accommodations desired, time of arrival and departure and price range.

Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

Two Highly Useful Forms of Metaphen

FOR ROUTINE AND EMERGENCY USE

Metaphen Solution 1:500 is the choice of many physicians whenever powerful and rapid germicidal action is desired but where the use of Tincture Metaphen 1:200 might not be indicated. It is recommended for the treatment of cuts and wounds, chronic fistulae, and for use in dermatological practice. Metaphen 1:500 is relatively non-irritating to skin, tissues and mucous membranes. It does not coagulate blood serum or tissue albumins, nor sting or cause pain when applied to cuts or wounds . . . and so is widely useful in first-aid work. It does not stain the skin or fabrics. For extemporaneous use Metaphen 1:500 may be diluted with distilled water and used in concentrations of 1:1000 to 1:2500. Supplied in 1-ounce, 4-ounce, 1-pint and 1-gallon bottles.

* * *

Metaphen 1:2500 is a stable solution ready for use for routine prophylaxis and treatment. Metaphen 1:2500 is particularly useful for minor first-aid, wet dressings, irrigation of infected wounds, and for home and prescription use in the treatment of infections of the eye, ear, nose and throat. It is prescribed for gonorrheal and other conjunctivitis, and when diluted with an equal amount of water it is used in gonorrheal urethritis, cystitis and pyelitis. It may be used full strength or diluted as a gargle. Accidental swallowing of the drug will do no harm. Metaphen 1:2500 is available at prescription pharmacies in 12-ounce and the 1-gallon patented Pour-Lip bottles.

METAPHEN

(4-nitro-anhydro-hydroxy-mercuri-ortho-cresol)

ABBOTT LABORATORIES
NORTH CHICAGO • ILLINOIS

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

Fireproof

SCHROEDER HOTELS

Sleep in Safety

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

USE THE MEDICAL LIBRARY SERVICE

412 North Charter Street

Madison

Service for Members at the Cost of Postage.

Helping the patient who cannot sleep

● The use of sedatives is not always necessary—nor always advisable. However, there are many cases where the use of a safe sedative will often prove helpful. This is particularly true during serious illness or before surgical procedures where sleep is essential to conserve the physical resources of the body.

In the selection of a sedative or hypnotic due consideration must be given to its safety, its therapeutic benefits and its freedom from undesirable after effects.

IPRAL CALCIUM has long been used as a safe sedative and hypnotic. It is readily absorbed, effective in small dosage and rapidly eliminated, producing a sound, restful sleep from which the patient awakens calm and generally refreshed. In the usual therapeutic doses no untoward systemic by-effects have been reported. Undesirable cumulative effect may be avoided by proper regulation of the dosage.

IPRAL CALCIUM (calcium ethylisopropylbarbiturate) is supplied in 2-gr. tablets and in powder form for use as a sedative and hypnotic.

IPRAL SODIUM (sodium ethylisopropylbarbiturate) is supplied in 2-gr. capsules for hypnotic use and in 4-gr. tablets for preanesthetic medication.

IPRAL CALCIUM (Powder) is available in 1-oz. bottles. Tablets Ipral Calcium 2 gr., Tablets Ipral Sodium 4 gr., and Capsules Ipral Sodium 2 gr. are available in bottles of 100 and 1000.

For literature address Professional Service Department, 745 Fifth Avenue, New York

E·R·SQUIBB & SONS, NEW YORK
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

Ipral PRODUCTS

MADE BY E. R. SQUIBB & SONS, MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

BIDWELL BETTER LIMBS

Everyone Receives the Personal Attention of G. L. Bidwell the well-known Orthopedic Appliance Expert.

EXPERIENCED LADY ATTENDANT

Artificial Limbs, Braces, Trusses, Elastic Stockings, Crutches, Invalid Chairs, Abdominal Belts.

934 N. WATER ST.
PHONE BROADWAY 4369
MILWAUKEE, WISCONSIN

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S
770 North Water St. Phone Daly 1461
MILWAUKEE, WIS.

JAMES ROBBINS, M.D.
Medical Director

E. J. KELLEHER, M.D.

CHRISTY BROWN
Business Manager

PETER BASSOE, M.D.
Consulting Physician

Established 1905

Sanger Brown, M.D.

Kenilworth Sanitarium
Northern Suburb of Chicago

Built and Equipped for the Treatment of Nervous and Mental Diseases

Over Ten Acres
Well Parked and
Landscaped Grounds

Supervised Recreational
and Occupational Activities

Gardening—Hydrotherapy

Address P. O. Box 600
Kenilworth, Ill.

WHEN DEALING WITH CANCER
Consider the Utility, Accessibility and
LOW COST OF RADIUM THERAPY

LEASING PLAN: Equivalent to radium ownership without CAPITAL investment. You keep possession continuously. We pay insurance and upkeep. Fifty milligrams for $22.50 per month; 100 milligrams $40. Larger amounts in proportion. The initial lease is for a period of one year. New radium. Modern platinum containers.

RENTAL PLAN: Any quantity available by special delivery express. Platinum tubes and needles, and plaques, in all dosage range. The basic rate is $10 for 50 milligrams for 36 hours' actual time of application.

PURCHASE PLAN: Radium in all forms available for purchase in any quantity at the lowest price in the history of the radium industry.

RADON: Radon in ALL-GOLD implants at $2.50 per millicurie.

THE COMPLETE SERVICE FOR RADIUM USERS

Telephone RANdolph 8855, or write or wire

RADIUM AND RADON CORPORATION
Marshall Field Annex Building 25 E. Washington St.
CHICAGO, ILLINOIS

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements

The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course

The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission

A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction

The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities

Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

JAMES C. SARGENT, Milwaukee, President
A. E. RECTOR, Appleton, President-Elect
HENRY J. GRAMLING, Milwaukee, Speaker
J. NEWTON SISK, Madison, Vice-Speaker
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Madison, Secretary

Councilors

TERM EXPIRES 1939

First District:
H. P. Bowen_____Watertown

Second District:
Frank W. Pope_____Racine

TERM EXPIRES 1940

Third District:
Joseph Dean _____Madison

Fourth District:
B. I. Pippin___Richland Center

TERM EXPIRES 1940

Fifth District:
A. H. Heidner_____West Bend

Sixth District:
S. E. Gavin_____Fond du Lac

TERM EXPIRES 1938

Seventh District:
H. A. Jegi_____Galesville

Eighth District:
G. R. Duer_____Marinette

Ninth District:
Joseph F. Smith _____Wausau

TERM EXPIRES 1938

Tenth District:
F. E. Butler _____Menomonie

TERM EXPIRES 1939

Eleventh District:
F. G. Johnson_____Iron River

Twelfth District:
Joseph Lettenberger_Milwaukee

TERM EXPIRES 1938

Thirteenth District:
J. W. Lambert_____Antigo

Delegates to American Medical Association

J. GURNEY TAYLOR, Milwaukee
GUNNAR GUNDERSEN, La Crosse
JOSEPH F. SMITH, Wausau

Alternates

S. J. SEEGER, Milwaukee
R. G. ARVESON, Frederic
C. W. GIESEN, Superior

The Wisconsin Medical Journal, Official Publication
Advertising Representative: Cooperative Medical Advertising Bureau, 525 North Dearborn St., Chicago, Illinois

List of Executive Officers of County Medical Societies

County	President	Secretary
Ashland-Bayfield-Iron	F. D. Weeks, Ashland	J. W. Prentice, Ashland.
Barron-Washburn-Sawyer-Burnett	H. H. Ainsworth, Birchwood	D. L. Dawson, Rice Lake.
Brown-Kewaunee-Door	W. P. Tippet, Green Bay	W. A. Killins, Green Bay.
Calumet	A. J. Wagner, Brillion	R. J. Winkler, Hilbert.
Chippewa	Rollin Schwartz, Chippewa Falls	R. S. Rodgers, Chippewa Falls.
Clark	A. L. Schemmer, Colby	M. V. Overman, Granton.
Columbia-Marquette-Adams	H. E. Gillette, Pardeeville	C. J. Radl, Wisconsin Dells.
Crawford	H. C. Lund, Gays Mills	C. A. Armstrong, Prairie du Chien.
Dane	L. V. Sprague, Madison	J. S. Supernaw, Madison.
Dodge	W. E. Bargholtz, Reeseville	Mark Temkin, Beaver Dam.
Douglas	R. C. Smith, Superior	S. H. Perrin, Superior.
Eau Claire-Dunn-Pepin	H. F. Derge, Eau Claire	S. L. Henke, Eau Claire.
Fond du Lac	J. C. Devine, Fond du Lac	A. M. Hutter, Fond du Lac.
Forest	G. W. Ison, Crandon	R. H. Beech, Laona.
Grant	M. W. Randall, Blue River	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-Waushara	Orvil O'Neal, Ripon	A. J. Wiesender, Berlin.
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville.
Jefferson	H. O. Caswell, Ft. Atkinson	A. C. Hahn, Watertown.
Juneau	H. C. Meyer, Necedah	Brand Starnes, New Lisbon.
Kenosha	C. G. Richards, Kenosha	L. H. Lokvam, Kenosha.
La Crosse	W. E. Bannen, La Crosse	J. A. Roth, La Crosse.
Lafayette	E. V. Hicks, New Glarus	E. D. McConnell, Darlington.
Langlade	W. P. Curran, Antigo	R. J. Portman, Antigo.
Lincoln	R. G. Baker, Tomahawk	L. J. Bayer, Merrill.
Manitowoc	Arthur Teitgen, Manitowoc	T. A. Teitgen, Manitowoc.
Marathon	H. H. Christensen, Wausau	G. H. Stevens, Wausau.
Marinette-Florence	J. V. May, Marinette	R. W. Shaw, Marinette.
Milwaukee	E. F. Peterson, Wauwatosa	Theodore Wiprud, Ex. Sec'y, Milw.
Monroe	J. M. Scantleton, Sparta	D. C. Beebe, Sparta.
Oconto	J. S. Dougherty, Suring	G. W. Krahn, Oconto Falls.
Oneida-Vilas	C. A. Richards, Rhinelander	Lloyd F. Kaiser, Rhinelander.
Outagamie	R. V. Landis, Appleton	M. E. Swanton, Appleton.
Pierce-St. Croix	O. H. Epley, New Richmond	A. E. McMahon, Glenwood City.
Polk	H. C. Caldwell, St. Croix Falls	Earl C Swenson, Frederic.
Portage	E. E. Kidder, Stevens Point	W. C. Sheehan, Stevens Point.
Price-Taylor	L. E. Nystrum, Medford	E. B. Elvis, Medford.
Racine	R. M. Kurten, Racine	A. M. Lindner, Racine.
Richland	C. F. Bowen, Richland Center	G. Benson, Richland Center.
Rock	W. O. Thomas, Clinton	C. R. Gilbertsen, Janesville.
Rusk	W. F. O'Connor, Ladysmith	M. L. Whalen, Bruce.
Sauk	F. R. Winslow, Baraboo	F. A. Fike, Reedsburg.
Shawano	L. W. Peterson, Shawano	A. A. Cantwell, Shawano.
Sheboygan	A. C. Radloff, Plymouth	W. G. Huibregtse, Sheboygan.
Trempealeau-Jackson-Buffalo	Donald Peterson, Independence	R. R. Richards, Blair.
Vernon	W. H. Remer, Chaseburg	R. S. MacKechnie, Hillsboro.
Walworth	W. W. Coon, Walworth	E. D. Hudson, Lake Geneva.
Washington-Ozaukee	P. M. Kauth, West Bend	R. S. Fisher, Allenton.
Waukesha	R. D. Thompson, Statesan	J. F. Wilkinson, Oconomowoc.
Waupaca	J. H. Murphy, Clintonville	J. W. Monsted, New London.
Winnebago	J. P. Canavan, Neenah	E. B. Williams, Oshkosh.
Wood	J. B. Vedder, Marshfield	W. G. Sexton, Marshfield.

Why Cosmetics?

Because . . .

It is woman's nature to make the most of her appearance . . .

Because, carefully selected and intelligently used, cosmetics keep a woman looking her best . . .

Because the knowledge that one's appearance is pleasing has a great deal to do with a healthy attitude towards life . . .

And because the chances are that you yourself, Doctor, perhaps without realizing it, appreciate the many little highlights of charm that cosmetics impart.

So . . .

Why not encourage your patients to take an interest in their appearance?

Because LUZIER REPRESENTATIVES are trained to help their patrons select suitable cosmetics they can be of indirect service to you and of direct service to your patients.

LUZIER'S, INC., MAKERS OF FINE COSMETICS & PERFUMES

KANSAS CITY, MO.

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 448

Founded in 1907 for the Scientific Treatment of

NERVOUS and MENTAL DISEASES

Hydrotherapy, Occupational Therapy and Re-educational Methods Applied.

Fireproof Building
Isolated Psychopathic Department for Acute Mental Cases
Separate Cottage for Convalescent and Rest Cases
Booklet on Request

Resident Physicians
JAMES C. HASSALL, M.D.
Medical Director

OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
JAMES C. HASSALL, M.D.

T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin

PETER BASSOE, M.D.
Chicago, Illinois

W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office: 1330 Wells Building
Tuesday Mornings by Appointment — Telephone Daly 1441

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1–3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

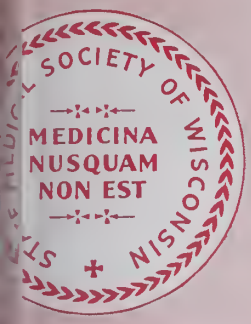
Resident Staff
Rock Sleyster, M.D., Medical Director.
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".

DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

Index
pp 162-4 cont



The Wisconsin Medical Journal

IN THIS ISSUE

INDIGESTION; SURGICAL ASPECTS
By E. L. Eliason, M. D.
ANESTHESIA; RECENT DEVELOPMENTS
By E. A. Rovenstine, M. D.
TREATMENT OF PRENATAL SYPHILIS
By Harry R. Foerster, M. D.
PRECIPITATION TESTS FOR SYPHILIS
By W. F. Lorenz, M. D.
PROCEEDINGS HOUSE OF DELEGATES
SECRETARY'S SUPPLEMENTAL REPORT

COLLEGE OF PHYSICIANS
LIBRARY
JAN 20 1938
OF PHILADELPHIA

TABLE OF CONTENTS PAGE 968

X VI, Number 12
ngton Avenue

MADISON, WISCONSIN, DECEMBER, 1937
Copyright, 1937, by The State Medical Society of Wisconsin
Per Year $3.50
Single Copy 50 Cents

RIVER PINES SANATORIUM

FOR PULMONARY TUBERCULOSIS

Established
1906

- A PRIVATE SANATORIUM.
- RESIDENT MEDICAL STAFF.
- INDIVIDUAL SLEEPING PORCHES.
- CAREFULLY SUPERVISED REST.
- EXCELLENT NURSING CARE.
- MODERATE RATES, $28 to $35 Per Week.

For Reservations or Further Information Write
T. L. HARRINGTON, M. D., Medical Director,
Stevens Point, Wisconsin.

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

BUILDING ABSOLUTELY FIRE-PROOF

BYRON M. CAPLES, M. D. Medical Director. FLOYD W. APLIN, M. D.

WAUKESHA, WISCONSIN

DOUBLE CHECK!

● The hundreds of Doctors who receive frequent checks from Employers Mutual for their treatment of compensation cases, can receive additional checks when they carry their own insurance with Employers Mutual. For this strong Mutual Company pays substantial dividends on Workmen's Compensation, Public Liability, Automobile and allied forms of Insurance. ● Because Employers Mutual is operated for the benefit of its policyholders, every effort is made to maintain a high standard of service, maximum safety, and rigid economy. Its policyholders benefit accordingly. ● You, as a Doctor, know that Employers Mutual pays its claims promptly, that it adjusts claims fairly, and that it chooses its risks carefully. It will be a profitable move for you to place your Insurance problems in the hands of this reliable Company. A letter or phone call to any branch office (or the Home Office) will bring a sincere, capable representative to your office.

EMPLOYERS MUTUAL LIABILITY INSURANCE CO.

PROTECTION EMPLOYERS MUTUALS INSURANCE Established 1911 SERVICE SAVING

EMPLOYERS MUTUAL FIRE INSURANCE COMPANY

HOME OFFICE **WAUSAU, WIS.**

Branch Offices in Appleton, Eau Claire, La Crosse, Milwaukee, Madison, Racine, Superior and Wausau

THE WISCONSIN MEDICAL JOURNAL

Volume XXXVI
Number 12

MADISON, WISCONSIN, DECEMBER, 1937

Per Year $3.50
Single Copy 50 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES — Page

Indigestion; Surgical Aspects by E. L. Eliason, M.D., Philadelphia — 979
Anesthesia; Recent Developments by E. A. Rovenstine, M.D., New York City — 984
Treatment of Prenatal or Congenital Syphilis by H. R. Foerster, M.D., Milwaukee — 987
Precipitation Tests for Syphilis by W. F. Lorenz, M.D., Madison — 993

EDITORIALS

Distribution of Ureteral Pain — 1002
The Doctors Start an Inquiry — 1003
Why So Excited? — 1004

MISCELLANY

The President's Page — 1005
Society Proceedings — 1006
The Woman's Auxiliary — 1010
News Items and Personals — 1012
Marriages, Deaths — 1014
Correspondence — 1014
Principles and Proposals of the Committee of Physicians — 1015
Examinations to be held
Navy Medical Corps — 1001
Board of Internal Medicine — 1040
Proceedings, House of Delegates — 1016
Attendance, House of Delegates — 1034
Council Proceedings — 1036
Officers and Committees, 1938 — 1038
Secretary's Supplemental Report — 1041
Membership, State Medical Society of Wisconsin — 1052
Books Received for Review — 1062
Book Reviews — 1064
Exchange Advertisements — 1068

[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee, Wis., under Act of Congress March 3rd, 1879. Transferred to Madison, Aug. 1st, 1929.]
"Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized Aug. 7, 1918."

SACRED HEART SANITARIUM

MILWAUKEE, WISCONSIN

An institution conducted for the diagnosis and treatment of mild nervous disorders and non-infectious diseases; also for rest and recuperation under medical supervision. Equipped with every modern facility for diagnostic purposes. Scientific dietetics, physio-mechanotherapy, hydrotherapy, supervised occupational and recreational activities. Literature and rates sent on request.

MEDICAL STAFF

William L. Herner, M.D., Medical Director
Delparde W. Roberts, M.D. — J. Frampton Wyman, M.D.
William F. Ragan, M.D. — Milton C. Borman, M. D.
Frank W. Mackoy, M.D. — Hubert H. Blanchard, M.D.
L. Tennyson Peyton, M.D.

When writing advertisers please mention the Journal.

ST. CROIXDALE ON LAKE ST. CROIX

Prescott, Wisconsin

MAIN BUILDING

A Modern Sanitarium for the Scientific Treatment of Nervous Diseases.

Situated at Prescott, Wisconsin, very near the Twin Cities, thus having all the advantages of both city and country, New fireproof and soundproof wing. Supervised occupational and recreational activities.

NEURO-PSYCHIATRIC ATTENDING STAFF

Arthur S. Hamilton, M.D. **H. B. Hannah, M.D.** **Joel C. Hultkrans, M.D.**

Illustrated Folder on Request *Rates Very Reasonable*

Address—Dr. Louis E. Jones, Physician in Charge, Prescott, Wis.

Established 1865

ARTIFICIAL LIMBS
ORTHOPEDIC APPARATUS
TRUSSES—SUPPORTERS
ELASTIC STOCKINGS

Superior custom work.
Woman Attendant for Women.

DOERFLINGER'S

770 North Water St. **Phone Daly 1461**
MILWAUKEE, WIS.

The Mary E. Pogue School

Established 1903

A school for the care and training of children mentally subnormal or who suffer from organic brain diseases.

Gilbert H. Marquardt, M.D., Attending Physician
William H. Holmes, M.D., Consulting Physician
Gerard N. Krost, M.D., Pediatrician

WHEATON, ILLINOIS **Phone—Wheaton 66**
90 Geneva Road

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

MEDICINE—Informal Course; Intensive Personal Courses; Special Courses.

SURGERY — General Courses One, Two, Three and Six Months; Two Weeks Intensive Course in Surgical Technique with practice on living tissue; Clinical Course; Special Courses.

GYNECOLOGY — Diagnostic Courses; Clinical Courses; Special Courses.

FRACTURES & TRAUMATIC SURGERY—Informal Practical Course; Ten Day Intensive Course starting February 14, 1938.

OTOLARYNGOLOGY — Two Weeks Intensive Course starting April 4, 1938.

OPHTHALMOLOGY—Two Weeks Intensive Course starting April 18, 1938; Personal Course in Refraction.

UROLOGY — General Course Two Months; Intensive Course Two Weeks; Special Courses.

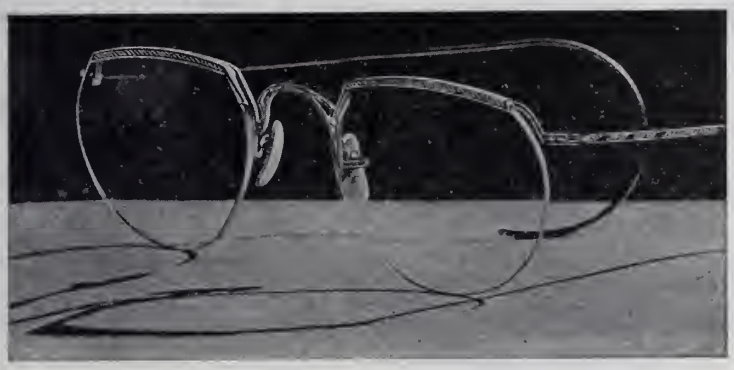
CYSTOSCOPY—Ten Day Practical Course.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE AND SURGERY.

Teaching Faculty—Attending Staff of Cook County Hospital

Address: Registrar, 427 South Honore Street, Chicago, Illinois.

Copyright 1937, LIGGETT & MYERS TOBACCO CO



WILSEDGE

New and Distinctive — No Screws or Holes in the Lenses

Firmly suspended before your eyes, thus permitting unobstructive vision from edge to edge.

An Outstanding Smart Spectacle
Exemplifies Modern Trend
Follows Contours of the Eyebrows

MILWAUKEE OPTICAL COMPANY

Appointed Distributors
BANKERS BUILDING, MILWAUKEE
Write us for detailed information on the requirements for obtaining this new feature

Behind

MERCUROCHROME

(dibrom-oxymercuri-fluorescein-sodium)

HW&D *is a background of*

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

ACCEPTED AMERICAN MEDICAL ASSN

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.
BALTIMORE, MARYLAND

PROFESSIONAL PROTECTION

SINCE 1899
SPECIALIZED
SERVICE

A DOCTOR SAYS:
"May I say to you that I know of no concern that has done as much to make the lives of the physicians and dentists livable as your company, and I have persistently insisted with all of my classes for many years past that they avail themselves of this particular form of what now really constitutes 'immunity.'"

THE
MEDICAL PROTECTIVE COMPANY
OF FORT WAYNE, INDIANA
WHEATON, ILLINOIS

In both acidosis and alkalosis, Karo is a carbohydrate of choice in the emergency of treatment . . .

CAUSES OF ACIDOSIS		CAUSES OF ALKALOSIS	
EXCESSIVE ACID FORMATION		EXCESSIVE LOSS OF ACIDS	
Acid	*Disturbance*		Hyperventilation
Aceto-acetic B-hydroxybutyric	Starvation Cyclic vomiting Diabetes Ketogenic diet	CO_2	Tetany Cerebral lesions (respiratory center) Hysteria Excessive crying
Lactic	Asphyxia Intestinal intoxication Respiratory failure Shock Burns	HCl	Vomiting Pyloric stenosis Intestinal obstruction
DEFECTIVE ELIMINATION		EXCESSIVE INTAKE OF ALKALI	
Metabolite	*Disease*	$NaHCO_3$	in Pyelitis in Nephritis
Phosphate	Nephritis		
Carbonic acid	Emphysema Respiratory obstruction Myocardial failure Narcosis		

From Kugelmass' "Clinical Nutrition in Infancy and Childhood"—(Lippincott)

TREATMENT of acidosis is designed primarily to correct the underlying cause. **In most types, fluids and fruit juices with Karo are forced every hour.** In cases associated with ketosis (except where it is a disturbance in carbohydrate metabolism, as in diabetes mellitus) 20% dextrose is given intravenously at repeated intervals. In case of diabetes, insulin is given, by some authorities, simultaneously one unit for each gram of dextrose, until the condition is controlled.

TREATMENT of alkalosis depends upon the cause. The most common variety in children is that resulting from prolonged vomiting with loss of acid, salt and body water. **No food is given by mouth except fluids with Karo,** and saline injected intravenously. If alkalosis is the result of alkali administration in the presence of nephritis with poor kidney excretion of salts, **large amounts of fluids with Karo will favor excess base elimination.** Alkalosis from excess alkali administration is alleviated by **forcing fluids with Karo.**

Karo consists of dextrins, maltose, and dextrose (with a small percentage of sucrose added for flavor), not readily fermentable, rapidly absorbed and effectively utilized.

For further information, write

CORN PRODUCTS SALES COMPANY
Dept. SJ-12, 17 Battery Place, New York, N. Y.

★ **Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.**

will YOUR SON be a Physician too?

If he chooses to follow in your footsteps there is ahead of him a long period of study. Of course, you'll want to safeguard his eyes from eyestrain and from resultant defective vision.

An I. E. S. Better Sight Lamp will provide protection against eyestrain. This lamp was designed by the Illuminating Engineering Society to give ample light, diffused over a wide table or desk area without glare.

THE ELECTRIC COMPANY
West Michigan at North Second Street
MILWAUKEE

M-J-1

Wisconsin Physicians!

In September, 1935, Milwaukee County Physicians were cordially invited to Milwaukee's Newest and Finest Optical Laboratory.

We now extend this same invitation to all State Physicians who have not had occasion to visit

"The House of Vision"

Then, as now, we were interested first and last in BETTER VISION. That is why our policy binds us to the service and interest of the Oculist (Eye Physician) only.

If you want your patients to have the finest lens that can be ground, you, our many State Oculists, will want to know more about . .

BELGARD SPERO INCORPORATED

"The House of Vision"

711 NORTH WATER STREET MILWAUKEE

THE SUMMIT HOSPITAL

Birdseye View Of The Summit Hospital Property, Located On Oconomowoc Lake, Two Miles East Of Oconomowoc.

Chronic and Nervous Disorders

Insulin Shock

Carbon Dioxide and

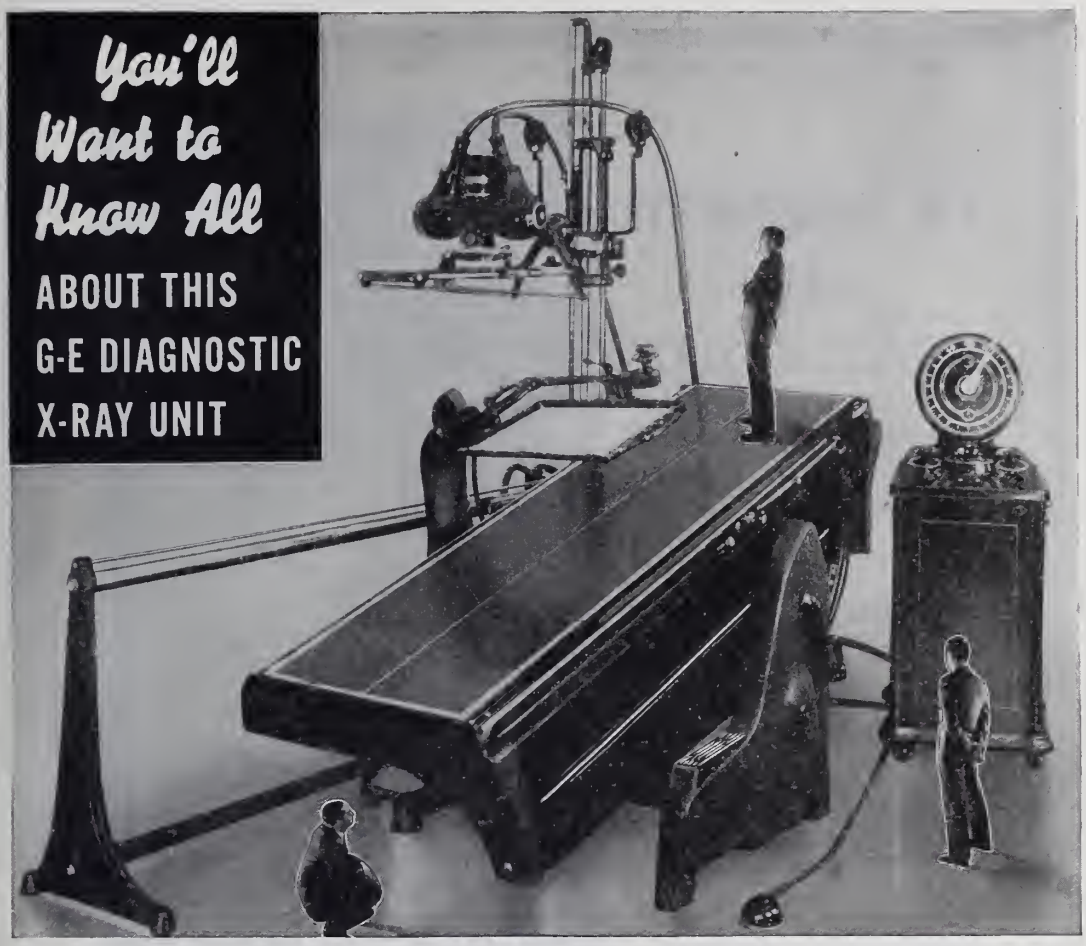
Fever Therapy

for selected cases

Sanatorium—Hospital Equipment and Personnel. Graduate Nursing Service—Fireproof Buildings—Beautiful Lake Shore Grounds.

G. R. LOVE, M. D., Physician in Charge

OCONOMOWOC, WIS.



IF you have put off buying diagnostic x-ray apparatus until you could satisfy yourself that, for what you can afford to pay, you will get what you'd really like to have—then it's time to size up the G-E Model R-36.

You want high quality, of course—reliable equipment to produce results that will reflect credit to your professional service. The R-36, designed for a much wider diagnostic range than the usual office x-ray unit, equips you ideally for radiographic and fluoroscopic examinations – including fractional-second films of the chest at six feet.

Self-contained and extremely compact, the R-36 is readily accommodated in a small floor space. Completely oil-immersed, it is shockproof, dust-proof, and moisture-proof—free from the effects of atmospheric variations. These outstanding features, combined with an ingenious control system which simplifies operation and gives you accurate and refined control of the x-ray energy, are reasons why you can rely on the R-36 for a uniformly high quality of results.

You'll have an entirely new conception of office x-ray equipment when you get all the facts on the R-36, and learn, too, that the moderate price and easy terms of payment bring it conveniently within your means.

A512

GENERAL ELECTRIC X-RAY CORPORATION

2012 Jackson Blvd. Chicago, Illinois

Please send, without obligation, your catalog on the Model R-36 Diagnostic X-Ray Unit.

Name .....

Address .....

.....

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

IN SINUSITIS AND HEAD COLDS

when you prescribe a liquid vasoconstrictor, consider three points:

1
PROLONGED EFFECTIVENESS

'Benzedrine Solution' produces a shrinkage which lasts 18 per cent longer than that produced by ephedrine.

2
MINIMUM SECONDARY REACTIONS

On continued use 'Benzedrine Solution' produces practically no secondary vasomotor relaxation.

3
REAL ECONOMY

'Benzedrine Solution' is one of the least expensive liquid vasoconstrictors.

BENZEDRINE SOLUTION

ACCEPTED AMERICAN MEDICAL ASSN.

Benzyl methyl carbinamine, S.K.F., 1 per cent in liquid petralatum with ⅓ of 1 per cent oil of lavender. 'Benzedrine' is the registered trade mark for Smith, Kline & French Laboratories' brand of the substance whose descriptive name is benzyl methyl carbinamine.

SMITH, KLINE & FRENCH LABORATORIES

Philadelphia, Pa. **Established 1841**

Christmas Greetings to All Our Friends

N. P. BENSON OPTICAL CO., INC.

Established 1913

MAIN OFFICE: MINNEAPOLIS, MINN.

— Branches —

Aberdeen
Bismarck
Duluth
Eau Claire
La Crosse
Wausau
Rapid City
Stevens Point
Albert Lea

Radium Rental Service

By

THE PHYSICIANS RADIUM ASSOCIATION

Organized for the purpose of making radium available to physicians to be used in the treatment of their patients. Radium loaned to physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

•

The Physicians Radium Association

Room 1307—55 East Washington St.,
Pittsfield Bldg., CHICAGO, ILL.
Telephones: Central 2268–2269
Wm. L. Brown, M.D., Director

BOARD OF ADVISORS
Walter S. Barnes, M.D., Bennet R. Parker, M.D.,
Frederick Menge, M.D., S. C. Plummer, M.D.

KREMERS URBAN CO.

Pharmaceutical Chemists

MILWAUKEE, WISCONSIN

THE SPA MUD BATHS

For The Treatment Of

Rheumatism, Arthritis, Lumbago, Neuritis, etc.

The Spa has also specialized in the treatment of diabetes and kidney diseases since 1910.

RATES

$37.50 a week and up for room, board, and daily mud bath.

W. E. Nicely, M.D. C. C. Edmondson, M.D.
K. B. Browne, M. D.

THE SPA - WAUKESHA

JAMES ROBBINS, M.D.
Medical Director

E. J. KELLEHER, M.D.

CHRISTY BROWN
Business Manager

PETER BASSOE, M.D.
Consulting Physician

Established 1905

Sanger Brown, M.D.

Kenilworth Sanitarium

Northern Suburb of Chicago

Built and Equipped for the Treatment of Nervous and Mental Diseases

Over Ten Acres
Well Parked and
Landscaped Grounds

Supervised Recreational
and Occupational Activities

Gardening—Hydrotherapy

Address P. O. Box 600
Kenilworth, Ill.

THE SHOREWOOD HOSPITAL-SANITARIUM

MILWAUKEE, WISCONSIN

FOR NERVOUS AND ALLIED DISORDERS
ALCOHOL AND DRUG ADDICTIONS

A Modern and Thoroughly Equipped Hospital for Diagnosis, Care and Treatment.

• •

Send for Illustrated Booklet

• •

Open to the Medical Profession

Established for 28 years

Physiotherapy, Heliotherapy, Hydrotherapy, and Occupational Therapy Departments. X-Ray and Laboratory facilities

WM. H. STUDLEY, M. D.
Resident Physician

HERBERT W. POWERS, M. D.
Consulting Physician

'Phone Edgewood 0384

THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXVI, NO. 12 Copyright, 1937, by The State Medical Society of Wisconsin DECEMBER, 1937

Indigestion; Surgical Aspects*

By E. L. ELIASON, M. D.
Philadelphia

THE surgical significance of indigestion will be discussed chiefly in connection with those conditions encountered in the right upper quadrant and attention will be directed to the diagnostic difficulties and the indications for surgery.

It has been but a comparatively few years since the medical profession employed in diagnoses such terms as indigestion, dyspepsia, achlorhydria, hyperchlorhydria, gastralgia, neurosis, gastric neurasthenia, etc., and these terms are still existent on our old private and hospital records. The patients then, as well as now, complained of dyspepsia, heartburn, flatulence, pain, nausea, vomiting, anorexia, water brash and belching. Practically all of these diagnoses relate to gastric dysfunction and the complaints are gastric in nature, yet they are by no means always indicative of gastric lesions. This is the reason for the statement that the stomach is the spokesman of the body. Gastrointestinal symptoms may be associated with and caused reflexly by lesions elsewhere in the abdomen than in the stomach, or by lesions in the chest or head, and the physician must recognize these reflex phenomena and act accordingly.

They were not recognized any too well thirty years ago and consequently the diagnostic batting average was low. But modern diagnostic aids, such as the x-ray, gastroscope, Jutte tube, biliary drainage and Graham-Cole test, and the increase in knowledge of digestive chemistry have helped to improve it in the last few years. Today the diagnoses are in terms of a pathological lesion with its associated indication for treatment. Trustworthy authorities are responsible for the statement that 60 per cent of the symptoms complained of by patients to their physicians arise from the digestive tract, chiefly the stomach, intestine and gallbladder. The stomach complains for them all, yet Dwyer and Blackford in 2,225 cases found the digestive disturbance was caused by gallbladder disease in 20.4 per cent and that the stomach was not the primary cause of digestive complaint in 80 per cent of the reported cases. Moynihan has stated that the stomach is the biggest liar in the body in that it complains often when it is not at fault. The nausea, vomiting and borborygmi accompanying brain lesions; the inordinate hunger, diarrhea and indigestion attendant upon the psychoses; the abdominal pain and rigidity secondary to pulmonary lesions; the nervous indigestion that comes with a toxic thyroid; and the upper abdominal distress incident to cardiac decompensation and coronary disease—all are examples of these reflex phenomena. Fright, shock and severe pain in any organ may cause cessation of peristalsis, nausea and vomiting. Even pregnancy is an offender in this respect and joins the ranks of mimics of abdominal disease.

Most symptoms of gastrointestinal disease are due first to interference with motility, then with function and lastly to the effects on other structures, as in perforation and hemorrhage.

Gastrointestinal disease as illustrated by the patient's symptoms is less typical than disease of the other organs of the body. For example, the pain may be described as gnawing, growling, boring, stabbing, aching, nauseating, gripping, distressing, racking, burning or even as "misery." This is possibly one of the reasons for faulty diagnosis in careless hands.

A survey of the laparotomies performed by the general surgeons, exclusive of geni-

* Presented at the 96th anniversary meeting of the State Medical Society of Wisconsin, Milwaukee, September, 1937.

tourinary and gynecologic conditions, in three large hospitals in Philadelphia gives some interesting data. An average of 65 per cent of the incisions were in the right lower quadrant and 25 per cent in the right upper quadrant. The approximate percentages of the diseases represented were: appendicitis, 56 per cent; gallbladder disease, 13 per cent; peptic ulcer, 4 per cent.

The Right Upper Quadrant

The right upper quadrant with its 25 per cent of laparotomies is the field upon which is tested our diagnostic ability. Here, most of all, faulty diagnosis, followed by surgery, is most disappointing and most likely to lead to subsequent surgical misjudgments and a patient with a plaintive "organ recital."

At the Hospital of the University of Pennsylvania Gastro Intestinal Clinic, the causes of indigestion are listed in the following order: gallbladder disease, duodenal ulcer, gastric carcinoma, gastric ulcer, appendicitis.

Gallbladder Disease

Evidence of gallbladder disease is found at 15 per cent of all autopsies and in 30 per cent of all patients dying after forty-five years of age. Thirty-six per cent of our cases gave symptoms before they were thirty-nine years old. A careful history, a duodenal drainage positive for crystals, and an x-ray examination positive for stones will help prevent mistakes in diagnosis. Errors and unjustifiable surgery are most often due to placing too much significance on dysfunction as shown in the dye test. In our experience the dye test alone without stone shadow contrast is insufficient evidence to justify surgery. It may be supportive evidence if associated with a typical history punctuated with biliary colic.

I think a warning should be made here against procrastination. H. F. Graham writes that according to a statement by the Metropolitan Life Insurance Company the death rate in gallbladder disease has not improved in twenty-four years despite improvement in gallbladder surgery and in pre- and postoperative care. The reason for this, it seems to me, is delay. The patient and the physician and often the surgeon will countenance delay. If an unusually severe attack does not respond to medical treatment, complications of duct obstruction, jaundice, pancreatitis and empyema result. Operation is indicated earlier in the course of the disease and earlier in the acute attack when it occurs, if we wish better results.

It is known that we cannot evaluate with assurity the seriousness of the pathologic state of the gallbladder by any known method. Gangrene and empyema may exist with insignificant evidence. If the acute attack does not subside under proper medical care—morphia, local heat and the withholding of everything by mouth—within twenty-four hours, surgery should be advised. Surgery early in the disease and early in the attack will give a mortality approximating 2 to 4 per cent. The mortality of delayed surgery with existing jaundice is 15 per cent, with pancreatitis 50 per cent, and with acute perforation, which occurs in 2 per cent of cases, it is 50 per cent. Basheim has shown that patients with one or two attacks show a 3 per cent mortality and those with three or more 8.7 per cent. Satisfactory results follow timely surgery in fully 85 per cent of cases. In our series of uncomplicated cholecystectomies 94 per cent were returned to good health. Half of the failures in obtaining relief were due to errors in diagnosis which were inexcusable when viewed in retrospect. Language difficulties in obtaining a proper history were a prominent factor. The other half of the failures were due to incomplete diagnosis; these all had calculi which evidently were silent but because found by the laboratory aids were removed while such lesions as peptic ulcer, carcinoma, etc., were overlooked. Early and properly chosen surgery will reduce both mortality and morbidity.

In common duct obstructions we are inclined to do a cholecystostomy rather than a cholecystectomy in the presence of jaundice with calculi, pancreatitis or carcinoma, on the theory that these very ill patients should be subjected to as little surgery as possible. Furthermore, simple drainage is often permanently sufficient as it is known that calculi do not necessarily always form in the gallbladder. Then, too, if further surgery is

necessary for duct obstruction the common duct is much more easily exposed and located by reason of having the gallbladder as a guide. Adhesions between the gallbladder and other viscera are more easily separated and with less injury than are adhesions to the liver surface at the old gallbladder site. A case in point is that of a male patient who was treated surgically six times, a cholecystostomy and a choledochostomy being performed each time. Calculi were found in the gallbladder only at the first operation. Hundreds of calculi were removed from the biliary ducts at each operation. The patient survived all this surgery and is living and well. The preservation of this man's gallbladder made his subsequent operations much easier.

Duodenal Ulcer

Duodenal ulcer, the disease of activity and worry, is a medical or nonsurgical problem in the beginning. Treatment should be economic, psychologic, hygienic and therapeutic in character. Surgery is indicated only when the ulcer does not respond to treatment such as that suggested above, or when there is perforation, hemorrhage or obstruction.

Duodenal ulcer patients may be placed in four groups for purposes of discussion. In the first group we often find the young man of "teen" age who suddenly has a hemorrhage or perforation with no previous symptoms of ulcer. This group constitutes about 16 per cent of the catastrophes of duodenal ulcer.

In the second group is the "ulcer type" of individual; the lean and hungry type, with Draper's charactertistics of low ponderal index, lantern jaw and irritability complex. The symptoms include high gastric acidity, hunger pains, food ease and periodicity of attacks. This is the worst group for surgery as these patients are prone to develop marginal and jejunal ulcers or a recurrence of a duodenal one. In making the diagnosis, the physician should insist on total abstinence from alcohol and tobacco. If symptoms persist a dependable roentgenographic report should be insisted on, confirming the almost pathognomonic history of the case. Miller has stated that this has been correct in 88 per cent of duodenal ulcers proven operatively. Pancoast and Pendergrass have always laid a great deal of stress on a routine which consists of a fluoroscopic and a roentgenographic study. A deformity of the stomach or duodenum appearing in the films may be due to a number of lesions, and without a fluoroscopic examination one hesitates to make a differential diagnosis. Likewise fairly typical fluoroscopic phenomena cannot be regarded as entirely diagnostic without a filling defect. It is true that one not infrequently ventures the opinion of a non-deforming ulcer, yet such a diagnosis cannot be accepted as readily as if there were a small defect present. The filling defect itself may be and usually is due to a small lesion plus spasm or adhesions, except when there is definite cicatrization present.

In the third group are those middle-aged men who have a healed ulcer with beginning obstruction. They no longer have the ulcer triad but they do have distention and postprandial eructations, and for this reason are often given the erroneous diagnosis of gallbladder disease. This group requires surgery of the simplest kind; a gastrojejunostomy with its low mortality is satisfactory in almost every case. Patients in this group rarely develop ulcer after surgical treatment.

In the fourth group are the elderly men who have almost complete twenty-four hour retention and a greatly dilated, decompensated stomach. Here the incorrect diagnosis of carcinoma is repeatedly made. Surgery is the only proper treatment.

In our series, one out of every five patients with duodenal ulcer suffered a catastrophe; and this despite the fact that 44 per cent were under medical treatment when the catastrophe occurred and 53 per cent of the patients suffering perforation gave a typical history. The United States mortality in perforation is 24 per cent, in hemorrhage 15 per cent. These figures can only be lowered by early recognition of the threat. When the ulcer triad changes to a constant, sharp pain oft times referred to the back and associated with tenderness, a perforation threatens. When hemorrhage enters the picture as it does in 33 per cent of cases it will

be massive and life-threatening in approximately 10 per cent. Of 100 patients with one massive hemorrhage, forty will not respond to conservative treatment; of 100 with two hemorrhages eighty-three will not respond to medical treatment. So we are warned.

Gastric Ulcer

In our series a history typical of gastric ulcer was given in 60 per cent of perforations and 60 per cent also were under medical treatment at the time of perforation. This means that the treatment of peptic ulcer is not in our hands as yet. It must be stated, however, that under modern medical treatment properly carried out, a great many of even the large gastric ulcers of the lesser curvature near the pylorus can be decisively and definitely cured.

It is well to remember that when the pathologic lesion changes the symptoms change. When the ulcer distress is no longer related to ingestion of food or drug, but becomes constant, sharper and referred to back or shoulder, the peritoneum is being threatened by perforation. Emery and Monroe, 1935, with an experience of 1,435 cases stated that "none of the present methods of treatment do more than assist in the induction of remissions, no matter how strict the medical schedule or how radical the surgery. Apparently surgical methods may produce longer periods of comfort than medical treatment but the former carry a definite threat to life." This is the reason for our statement above that surgery is only for the complications of ulcer, perforation, hemorrhage, obstruction and intractability.

Gastric Carcinoma

Gastric carcinoma comes next in frequency, creeping up on the unsuspecting patient and the most careful physician. Here is where the lying stomach injures us most. Carcinoma of the stomach has no early symptoms unless it is engrafted upon ulcer or polyp. The very earliest symptoms recognizable are not gastric or digestive, but anemia, weakness and loss of weight and appetite. It is only after obstruction that gastric symptoms appear. The earliest and surest aid to diagnosis is an x-ray examination. Gastric acidity figures will not always help as about 45 per cent of cases show no acid changes different from those of ulcer or gastritis (Smithies). The literature shows (Gatewood, Maes) that before 50 per cent of patients with gastric carcinoma reach the hospital, the disease has progressed to the inoperable stage. Their histories show that generally symptoms were present three and one-half months before they consulted a physician and, with no credit to our profession, another eight and one-half months were wasted on medical treatment before a diagnosis was made.

The only cure for gastric carcinoma is surgical removal of the entire growth, with a hospital mortality in the 50 per cent of operable cases of from 10 to 25 per cent. The patient who has lost 20 per cent of body weight, has a fixed mass, and a taut epigastrium is not for surgery. The best means of lowering the mortality of this disease is early diagnosis by x-ray examination. When the lesion is on the fundus, however, x-ray diagnosis is very uncertain. Palliative short circuits give a life expectancy of three and one-half months.

Other Diseases Masquerading as Indigestion

Gastric polyps.—Gastric polyps often present a difficult diagnostic problem. Their symptoms are unusual, irregular in appearance and duration and bear no relation to food. Marked anemia and achlorhydria are common. When the polyp prolapses into the duodenum, a ball-valve obstruction occurs which is often relieved when the patient turns on the left side. A roentgenogram will show characteristic changes.

Duodenal veils.—The so-called duodenal or Harris' veil can frequently be diagnosed from a roentgenogram. Per se, it should rarely if ever be sufficient reason for surgical intervention. In our experience, it is part of the ptosis picture and is not responsible for slowing the intestinal current enough to cause obstruction, despite the deformity shown on the film.

Duodenal ileus.—True gastro mesenteric ileus of an organic nature is easily diagnosed by an efficient roentgenologist. A duodenojejunostomy will usually give satis-

factory relief in this condition; but the neurotic or neurogenic individual with central nervous system disturbance presenting cyclic vomiting, migraine, diarrhea and associated secondary chemistry changes should not be subjected to surgery.

Pendergrass was impressed with the unusual roentgenographic findings in this type of patient. Twice in our experience with psychopathic patients in the Philadelphia General Hospital we have operated for perforated peptic ulcer and found a normal abdomen. One of these patients had had a previous operation for perforated ulcer with negative findings. In this same institution there is a record of twenty-five or more operations performed on patients from the psychopathic wards to recover ingested foreign bodies, ranging from one dessert spoon to numerous and bizarre objects, 456 in number in one patient. One patient limited herself to lead pencils and fifty-six of these were removed at her second operation. At her first operation, performed for acute appendicitis, a sharpened pencil was found perforating the cecum. The common reason given by all these patients for such strange diet was that they ate them to relieve their indigestion. Watts has studied abdominal phenomena of neurogenic origin and found in monkeys that certain cortical stimulation resulted in excessive spastic showers which often produced intussusception. It is fair to assume that Watts' observation might be the answer here.

Appendicitis.—A frequent cause of so-called acute indigestion is acute appendicitis. About 75 per cent of acute infections in the abdomen in the adult and 90 per cent in children under ten years of age are in the appendix. The typical case is easily diagnosed and early surgery gives excellent results. But about 25 per cent of cases are atypical in one or more symptoms and it is this group that causes the mortality. The absence of tenderness and rigidity at McBurney's point, a minimal degree of peritoneal reaction but with rigidity and tenderness in the right loin and in the upper right quadrant, high leucocytosis, temperature and often chills are compatible with an acute appendicitis, with the appendix situated behind the ascending colon in a subhepatic position. These patients, because of the lack of a typical picture, are often given diagnoses of acute indigestion of a dietary nature, acute cholecystitis, pyelitis or even intercostal neuralgia. Such atypical types are partially responsible for the mortality of over 10 per cent as stated by Bower in his appendicitis survey. Furthermore, 85 per cent of this mortality is due to surgical delay occasioned by doubtful diagnosis.

The diagnosis of appendiceal dyspepsia caused by chronic appendicitis should be made only after a thorough study and the elimination of such possibilities as peptic ulcer, gallbladder disease, ptosis of the kidney, spastic colitis, perihepatitis of gonorrheal origin and intercostal neuralgia.

Pancreatitis.—Acute pancreatitis is frequently diagnosed acute indigestion. Probably the best treatment for this condition is prophylaxis, timely biliary surgery and dietary restrictions. The acute attack is easily recognizable if one has the condition in mind. However, due to its relative infrequency it is often missed. Agonizing upper abdominal pain—the worst known to human beings—referred to the back, cyanosis, pulse-hurry out of proportion to other findings, leucocytosis, abdominal distention and paralytic ileus paint the picture. Half of the cases are erroneously diagnosed intestinal obstruction. Our mortality is about 50 per cent when treated medically and 34 per cent when treated surgically.

Chronic pancreatitis and carcinoma of the pancreas are common causes of dyspepsia. These conditions are usually heralded by pain in the back and often go unrecognized until itching and, later, jaundice appear. Silent relentless jaundice is a bad omen.

Hepatic abscess.—Hepatic abscess is being diagnosed more often now than it was a few years ago. In this country suppurative appendicitis associated with pylephlebitis is the most frequent cause. The lesions may be multiple but in half of the cases a single abscess, usually in the right lobe, occurs. The symptoms are daily chill, temperature of 104° to 105° F., sweats, vague discomfort

in the right upper quadrant with tenderness over the lower lateral aspect of the thorax, anorexia, rapid weight loss, jaundice and high leucocytosis. The right diaphragm is usually limited in excursion and becomes elevated. The x-ray examination reveals some lung reaction above and often a slight effusion. Differential diagnosis must be made from typhoid, pyelonephritis, bacteremia and biliary disease.

Parietal or intercostal neuralgia.—At this point mention should be made of parietal or intercostal neuralgia. This confusing finding is manifest in all quadrants but is most dangerous in its interpretation on the right side because of the probability of its being secondary to acute gallbladder disease, duodenal perforation or acute appendicitis. It seems to the writer that it is of the utmost importance not to diagnose the neuralgia but to demonstrate its underlying cause, whether appendicitis, ulcer, gallbladder disease or pneumonia.

Conclusions

The right upper quadrant should command our utmost respect. It is dangerous for the surgeon to insult this region with a careless or incomplete diagnosis. The other quadrants will often forgive us: this one rarely forgives or forgets. The diagnosis of adhesions in this quadrant, as a causative factor for surgery, should be made with extreme caution. To operate for gallbladder disease purely on the basis of defective function as shown by the dye test is dangerous. When gastric symptoms are not typical one should think of carcinoma or polyp. Care must be exercised in the proper evaluation of the neurogenic element and its mimicry. When the clinical history of a dyspeptic and the laboratory findings do not agree, review both, repeating if necessary before advising an exploratory laparotomy. There are many medical diseases responsible for indigestion but they must be proven. Persisting painful dyspepsia usually requires surgery. Early surgery means easier surgery, as it forestalls the difficulties incident to advanced and widespread pathological conditions. Finally, indigestion should be considered surgical until proven medical. Neglect invites increased morbidity and mortality.

Anesthesia; Recent Developments*

By E. A. ROVENSTINE, M. D.
New York City

WITHIN recent years, especially those of the last decade, an imposing number of new anesthetic drugs, technics and appliances have been added to the anesthetic armamentarium, and many already in use have been brought nearer perfection.

A new volatile agent, divinyl oxide (Vinethene), has been put into use, and, although its definite place in clinical anesthesia is still to be established, good results are reported from its use in obstetrics and during superficial operations or those requiring a relatively short time.

For the past seventeen years, tribromethylalcohol (Avertin) has been used rectally to produce anesthesia. Until recently, efforts were directed toward utilizing the drug as a complete anesthetic agent. This practice has been largely abandoned in favor of its use for basal narcosis, with more satisfactory results and a decreased mortality. Tribromethanol has been found to possess definite advantages in certain ophthalmic operations and surgical manipulations within the cranial cavity since it reduces intraocular tension and does not increase intracranial pressure.

Cyclopropane, a gaseous agent, was introduced four years ago. In comparison with other anesthetic gases, it possesses the distinct advantages of greater potency and of

* Presented at the 96th anniversary meeting of the State Medical Society of Wisconsin, Milwaukee, September, 1937. From the Division of Surgery, Department of Anesthesia, New York University College of Medicine, and the Division of Anesthesia, Bellevue Hospital.

producing anesthesia in low concentration with high oxygen dilution. In certain operative procedures, it has been acclaimed as particularly useful. Intrathoracic manipulations, obstetrics, thyroid surgery and many other operations are frequently conceded to be safer and more convenient when performed during cyclopropane anesthesia.

None of the anesthetic agents of recent introduction have created more interest than the various compounds derived from barbituric acid. These products are numerous and significantly many of them have been recommended and employed without sufficient, reliable investigation of their pharmacologic action. Recent editorials, reports of scientific committees and discussions by eminent members of the profession have stressed the dangers accompanying indiscriminate use of the barbiturates for clinical anesthesia. Drugs such as sodium thiopentobarbital and Evipal are now being used extensively for intravenous anesthesia. Reports have been optimistic but not without definite warnings. Before they may be accepted and assigned a proper place in anesthesia, additional knowledge, particularly of their pharmacologic characteristics, is essential.

Regional anesthesia, including subarachnoid nerve blocking, was new at the beginning of the present century. Until the past few years, when a more rational level of applicability has been reached, there have been alternating waves of enthusiasm and depression concerning its value. Regional anesthesia is a method with considerable promise since it aims to affect only a limited portion of the body with little influence on vital organs. Its development, however, has not kept pace with developments in other practices. Spinal anesthesia has been widely used because its technic is comparatively simple and it offers the primary desideratum for abdominal surgery, the completely relaxed abdomen. It appeals to the temperament of many surgeons and especially to those who are most interested in successfully attaining the objective of the operation. Efforts to eliminate spinal anesthesia sequelae, which often complicate, prolong or prevent recovery of the patient, have not been altogether successful. To date, there is no absolute proof of the intrinsic superiority of spinal anesthesia over other methods.

Many ingenious devices have recently been perfected for improving the technical application of anesthetic agents, and several new methods have been advanced. Of the latter, the recent increase in the employment of the carbon dioxide absorption technic is the most significant. This method has been in use for more than twenty years but its adoption has spread during the last few years, unlike most merited innovations, chiefly from direct or indirect contact with the originator (Dr. R. M. Waters). The most important advance offered by the carbon dioxide absorption method is that the control of the anesthetic agent, of oxygen and carbon dioxide, and of respirations is definitely placed in the hands of the anesthetist. With it the administration of inhalation anesthesia may be conducted upon a physiologic basis. Another technical improvement of considerable interest is the widespread use of endotracheal airways. Various materials have been used to prepare tubes which may be placed translaryngeally into the trachea and provide unobstructed respiratory exchange of oxygen, carbon dioxide and anesthetic gases or vapors. With such airways, several surgical procedures that provided many difficulties for the anesthetist are now accomplished with added convenience to the surgeon and safety to the patient.

Progressive developments in anesthesia have not been limited to new drugs and methods. The anesthetist's field of usefulness has been widened by advances in other practices. The more liberal use of inhalation therapy, the increased demand for therapeutic and diagnostic nerve blocking, and the increased opportunity for the practice of resuscitation have tended to make anesthesia more specialized and have divorced it from its definite single appointment as an accessory to surgical therapy.

Anesthetists and the Patient

There is rapidly developing a keen appreciation of the necessity for proper preparation of the patient for anesthesia and surgery. No agent or technic is advanced that

offers security for the patient not properly prepared. The routine use of diets, fluids or preanesthetic drugs is no longer accepted practice. It is realized that surgical patients cannot be satisfactorily grouped as clinical entities or types of diseases but that each patient is an individual requiring particular safeguards and preparation and must be viewed, not only from the standpoint of the existing pathology, but as a whole. Enormous progress has been achieved in making anesthesia safe for surgical patients but much still needs be done to make surgical patients safe for anesthesia.

Surgeons are becoming cognizant of the fact that the inherent qualities of a drug or technic do not assure a satisfactory result. An immanent requisite of any anesthetic procedure is its proper application. The training, experience, ability and judgment of the anesthetist is now regarded with more concern by the discerning surgeon than the properties of the drug or the refinements of the apparatus. For this reason, there is a growing insistence on adequate scientific preparation of the anesthetist. Anesthetists should have a knowledge of anatomy, physiology, pharmacology, biochemistry and pathology closely approximating that demanded in any field of medical practice. An understanding of anesthetic theory and technic alone is inadequate provision for those who will carry the responsibilities of modern anesthesia.

There is a growing consciousness of the need for increasing and improving facilities for the preparation of those who will be entrusted with the future destinies of anesthesia. An increasing number of medical schools have anticipated the consequences of inaction and have established departments of anesthesia. Faculty appointments have been made and the curriculum altered to include didactic and clinical instruction. These assignments are being made attractive to physicians with extensive experience and training who are devoting their entire time to the specialty. Increasing numbers of fellowships and residencies are available at prominent clinics and hospitals that have been investigated and approved by the Council on Medical Education and Hospitals of the American Medical Association, where graduates in medicine may receive postgraduate instruction in anesthesia. Laboratories and clinics under the direction of medical institutions have recently been anxious to accept the responsibility of physiologic and pharmacologic as well as clinical investigation of anesthetic drugs and methods, and are no longer satisfied to leave this necessary requirement for progress exclusively with commercial firms supplying anesthetic agents and apparatus.

Changing Concepts

The stimulus that impels investigators to create what is needed is always more important for progress than the results of their efforts. Until the last few years progress in anesthesia has not been constant, orderly or logical. It has followed the direction of those leaders in surgery who have been able during their time to shape the attitude toward, as well as the practice of the various phases of their specialty. The time is not far removed when these surgeons were depending on the dexterity and rapidity with which they performed various technical procedures to make their therapy successful. The surgeon was giving his best efforts toward perfecting technics and the study of pathological tissues. There was little criticism and, consequently, infrequent scientific appraisal of any anesthesia that presented him with a patient insensible to pain and with skeletal muscles relaxed. Anesthesia was then condoned as necessary but not conducive to successful surgical therapy.

The new era in surgical therapy has created a new order for anesthesia. Surgery, failing the desired results from refinements in technic and taking advantage of the enormous progress in knowledge of disease processes, has exacted from its followers more than a mastery of operative technic, more than a knowledge of topographical anatomy and surgical pathology, more than the art of obtunding pain and muscle reflexes with anesthetic drugs. It has demanded an appreciation of the biochemical, physiologic, and psychologic disturbances related to disease. Its new objective is the restoration of the functions of the organism as a whole.

It has ceased to be a therapy solely for organs and tissues but has become a therapy for function as well. Today the concern over immediate surgical results is not eclipsed by the anxiety for remote effects. Every effort is made to reduce to a minimum morbidity as well as mortality by eliminating every factor that might mitigate against the patient's convalescence or complete recovery. This recasting of attitude has created an intimate and interdependent relationship between surgery and its allied specialties. Biochemical disturbances are recognized as a dominant influence in operative procedures. An appreciation of the effects of physiologic alterations upon surgical results is firmly established. Diagnostic procedures with x-ray and laboratory aids are considered a necessary adjunct to surgical efficiency. And it is also realized that anesthesia plays a significant role in modifying surgical results; that delay in postoperative recovery is often delay in postanesthetic recovery, and that surgical mortality is often due to anesthesia.

The new concept of surgical therapy has challenged anesthesia to bring an indispensable service toward perfection. It has demanded that each surgical patient be protected with a high degree of judgment, knowledge and skill in preoperative preparation, choice and administration of anesthetic agents and methods, and prophylaxis and treatment of postoperative complications. It has provided the incentive for progressive development, scientific alignment and clinical improvement of anesthesia. It represents the most important development in surgical anesthesia since its inception more than ninety years ago.

The Treatment of Prenatal or Congenital Syphilis*

By HARRY R. FOERSTER, M. D.
Milwaukee

THE treatment of syphilis of infants and children is a timely subject for discussion, in view of the nation-wide campaign for the eradication of syphilis, and because of the emphasis being placed on preventive medicine. Prenatal syphilis can be eradicated by an application of the principles of preventive medicine.

Practically all syphilis of the new-born develops by the diaplacental route; that is, it is acquired by the fetus in utero from the mother through infection of the placenta. It should therefore be referred to as prenatal syphilis, a designation that has been nationally adopted to replace the less correct term congenital syphilis and the wholly incorrect one of hereditary syphilis. This disease cannot be transmitted by the germ plasm and it therefore cannot be inherited. Syphilis acquired in the birth canal is almost unknown.[1] A syphilitic woman in whom evidence of the disease may be clinically or serologically absent may liberate occasional showers of Spirochaeta pallida into her blood stream from an unrecognized focus, and if such an incident occurs during pregnancy the placenta, and then the fetus, will be infected. The mother is, therefore, an active syphilitic before her offspring becomes infected. Early infection of the fetus results in abortion or miscarriage, and in most stillbirths and in infants born with active syphilis, the disease had its inception at or after the fifth month of intra-uterine life. These facts are of significance in treatment.

Prenatal syphilis is an important sociologic and economic problem. Group studies show that from 8 to 10 per cent of the women attending prenatal clinics have positive serologic tests, and that approximately 2 per cent of the total number of children born in the United States have prenatal syphilis.[2] The incidence varies from 0.5 to 30 per cent in different analyses, being highest in clinics attended wholly by negroes. Schowalter[3] reported that 2 per cent of the inmates in the Milwaukee County Home for Dependent Children had congenital syphilis, but he recorded only thirty-five positive Wassermann

* Presented at the 96th anniversary meeting of the State Medical Society of Wisconsin, Milwaukee, September, 1937.

tests (0.56 per cent) on 6,200 admissions from 1922 to 1931.

For this paper I have studied the records of 268 patients with prenatal syphilis from the Department of Dermatology and Syphilology of the Milwaukee County Dispensary. Only eighty-six patients (32 per cent) came to the clinic because of symptoms resulting from syphilis. The social service department brought in forty-eight patients (18 per cent) because some other member of the family was under treatment. Thirty-three (12 per cent) were referred because routine Wassermann tests, taken on suspicion of possible syphilis, were positive, and in thirty-one children (12 per cent) the presence of syphilis was discovered while they were under observation or treatment for unrelated illnesses. Twenty-six patients were referred by the Milwaukee Children's Hospital which has discontinued its syphilis clinic. The records did not indicate the reason for admission of the other forty-four patients. The importance of routine serologic tests, particularly in pediatric clinics, and of social service investigations is indicated by these figures.

Ninety per cent of our patients were white and 10 per cent negroes, 57 per cent females and 43 per cent males.

It is significant that only 18 per cent of both males and females came under treatment during the first three years of life and that 31 per cent of the males and 45 per cent of the females were past the fifteenth year of age. The clinic therefore started treatment distinctly handicapped in 82 per cent of its cases, for next to treatment of the mother during pregnancy, the most effective period for treatment of prenatal syphilis is during the first two years of life. Prenatal syphilis after the second year is referred to as late prenatal syphilis and falls in the same category and has the same treatment handicaps as late adult syphilis. At that time there may be advanced or even irreparable tissue damage.

Symptoms of syphilis were present in 111 patients on admission: 44 per cent had ocular symptoms, 6 per cent cutaneous, 6 per cent auditory, 15 per cent neurologic, and 11 per cent had symptoms indicating bone involvement. Fifty patients, 84 per cent of whom had syphilitic dental deformities, exhibited the stigmata of prenatal syphilis. The Cooperative Clinic Group[4] reported interstitial keratitis as the principal admission diagnosis, recording it in 33 per cent of 1,000 cases of late prenatal syphilis. Our group recorded 31 per cent with interstitial keratitis.

Serology

The serologic test, aside from its importance in diagnosis, is indispensable as a guide to therapy and prognosis. Positive serologic findings were the basis of diagnosis in 12 per cent of this series, and of those patients on whom serologic reports were available on admission 167 had strongly positive serologic tests and twenty-three had negative ones. It is significant that of six patients having active skin lesions of prenatal syphilis three had negative serologic tests at the time of diagnosis; and that a number of patients were seronegative during pregnancy who were seropositive shortly before pregnancy and again months after pregnancy. Six patients remained seronegative throughout treatment and in the presence of active lesions, and the serologic tests of several others relapsed to positive during treatment.

Eighty per cent of the patients recorded as adequately treated had negative serologic tests on termination of treatment. The 20 per cent who remained seropositive following treatment included those with neurosyphilis.

In the patients recorded as inadequately treated the serologic reactions remained positive in 79 per cent and were reduced to negative in 10 per cent. In twelve cases the serologic tests, originally positive, after becoming negative, again relapsed to positive. The reversal to negative of a positive serologic test is not to be accepted as evidence of recovery and should not mark the end of treatment. No treatment may be considered completed without negative findings in the cerebrospinal fluid.

The value of making a Kline microprecipitation test, as well as a Wassermann test, is indicated by an absolute disagreement of the tests in eighteen instances.

This is not as significant as it may seem for in the series of 268 cases approximately a thousand tests were made. The Kline test proved to be more sensitive than the Wassermann in that it remained strongly positive in some inadequately treated patients when the Wassermann test had become negative. In several instances the Wassermann test became negative only to revert to positive later in the course of treatment while the Kline remained positive. On the other hand, in untreated patients the Wassermann test was sometimes reported more strongly positive than the Kline.

Prenatal Clinic Cases

It is noteworthy that of fifty-eight recent patients with syphilis in pregnancy there were twenty-one with prenatal syphilis; that seventeen of these, comprising 11 per cent of the females in this study, had previously received treatment in the clinic; and that only five of them can be recorded as having been adequately treated before pregnancy.

In this group of fifty-eight there was adequate treatment during thirty-four pregnancies. At term there were thirty-one normal labors and two cesarean deliveries, resulting in thirty-three apparently normal infants. Tests of the cord blood were recorded in only fifteen instances but in fourteen were negative. At term seventeen of the mothers were seronegative, five were seropositive and the serologic reactions of the other twelve were not recorded. The only death was that of a premature infant in its third week, and the record did not disclose that syphilis was the cause of prematurity or death.

On the other hand, in the group of twenty-four patients inadequately treated during pregnancy, there were five miscarriages or stillbirths, one premature birth, one cesarean delivery and seventeen normal labors. Of the resulting eighteen apparently normal infants, seven had positive cord blood tests and there was no record of tests in the remainder. Seven of the mothers were seropositive at term, three seronegative, and the serologic reactions of the other fourteen were not recorded. Though this group is small and the records incomplete, the contrast between the adequately and inadequately treated pregnancies is such as to indicate the effectiveness and importance of thoroughly treating the syphilitic pregnant woman. The importance of this is enhanced by the evidence that many of these women have multiple pregnancies, some as many as five. It should also be evident that normal delivery of a woman with latent syphilis resulting in an apparently normal infant, does not indicate that the infant may not have syphilis. Woodburne[5] stated that most syphilitic infants are born during a period of clinical latency, because of infection having usually occurred from three to five months before birth.

While it is generally stated that syphilis does not involve the third generation, we have recorded two stillbirths and five positive tests of the cord blood in the third generation of the group of twenty-one congenitally syphilitic women.

In a study of over 4,000 pregnant women Williams[2] found that when no treatment had been given during pregnancy 52 per cent of the children showed signs of syphilis, while following adequate treatment this percentage was reduced to 7.5. Roberts[2] reported 51 per cent syphilitic children among 317 untreated syphilitic negro women and less than 6 per cent among 188 women who had received nine or more injections of arsphenamine during pregnancy.

Treatment

The treatment of prenatal or congenital syphilis may be divided into three stages: (1) preventive, (2) early and (3) late.

(1) *Preventive treatment* should be both *pre- and post-conceptional.* State laws handicapping syphilitics in establishing a marital status, if properly devised and enforced, may effectively reduce the incidence of prenatal syphilis. An awareness of the possible presence of syphilis by the physician, particularly by the family doctor, and routine serologic tests in public clinics, will uncover many cases of latent syphilis and afford an opportunity for preconceptional treatment of the married woman. Routine serologic tests by obstetricians in clinic and private practice alike will go far in reducing the number of infants born with syphilis.

Education of the laity in these matters is likewise of importance; the low incidence of syphilis in the well-to-do, and the high incidence among the poor and among negroes is in large measure due to ignorance of the consequences of syphilis.

By efficient medical service, education and legislation Denmark has reduced its incidence of prenatal syphilis nine-tenths in twelve years and has almost eliminated syphilitic stillbirths and the severer forms of prenatal syphilis.

The syphilitic but otherwise healthy pregnant woman can be energetically treated without danger to herself or her fetus, in fact with a reduction in the hazard otherwise harbored, and the infant at term will be normally developed and symptom-free in approximately 90 per cent of adequately treated cases.

Treatment may be begun as soon as the pregnancy is diagnosed, and carried on without interruption throughout pregnancy. Dennie[6] warns against treatment after the eighth month, however, because energetic treatment at that time may precipitate an eclampsia or a nephritis; and Stokes,[7] an advocate of potent arsphenamine, favors conservatism in treatment throughout pregnancy. Our usual procedure is to start with an intramuscular injection of bismuth salicylate or iodobismutol, followed in several days by an intravenous injection of neoarsphenamine or mapharsen. The dosage employed is the average dosage for nonpregnant women, that being the equivalent of one to two grains of metallic bismuth, 0.3 to 0.45 Gm. neoarsphenamine or 30 to 40 mg. of mapharsen. Both heavy metal and arsenical are given weekly, but preferably not on the same day, and 8 to 10 bismuths and 6 to 8 arsenicals constitute a course of treatment. In a woman apparently cured of syphilis or with latent syphilis, a single course of this kind early in pregnancy is always advisable. In an active syphilitic the intensity of treatment should be varied with the activity and status of the disease and the tolerance of the patient, but at least two courses should be given. It is not necessary to give both drugs the same week if the disease is latent and the patient under treatment early. Rest periods between courses of treatment should not be allowed during pregnancy or should be restricted to periods of one or two weeks. A negative serologic reaction should definitely not exempt a patient from treatment, since the pregnant syphilitic even when seronegative may bear a syphilitic infant. Dennie[6] states that the basis for stigmata, such as Hutchinson's teeth, is formed before the fourth month of uterine life, indicating the desirability of treatment very early in pregnancy.

The woman under treatment must of course be more closely watched during pregnancy than otherwise, and particular attention paid to the condition of the liver, kidneys and heart. On delivery, serologic tests of the placental or cord blood should be made and repeated on the child in eight weeks, with or without immediate treatment, depending upon the individual case. A syphilitic child may remain seronegative until as late as the fifth year.

(2) *The treatment of early prenatal syphilis* comprises treatment measures carried out at any time from birth through the first two years of life. Such treatment may be started with mercury ointment placed under the abdominal binder and with stovarsol (acetarsone) given in milk or water. If the infant exhibits symptoms of syphilis at birth it is preferable to institute more energetic treatment, by intramuscular injections of bismuth or mercury and of neoarsphenamine or mapharsen. Ultimate satisfactory clinical response is in direct proportion to the age at which treatment is instituted and the amount of treatment.[8]

Bismuth salicylate is given in a dosage of 2 mg. per kilogram of body weight and neoarsphenamine in a dosage of 0.010 to 0.015 Gm. per kilogram. On this basis an average-sized infant at three weeks would receive one-half grain bismuth salicylate and 0.1 Gm. neoarsphenamine per dose. Ten to twelve injections of bismuth at weekly intervals should be followed by six to eight injections of neoarsphenamine at weekly intervals, to comprise a course. After a rest period of a month, another course should be given and these courses and rest intervals are to be repeated over a period of one to

three years, during which time the dosages are moderately increased with increase in body weight, though, according to Rosen (see MacKee[9]), no child under three should receive more than 0.2 Gm. of neoarsphenamine or more than one grain of bismuth per dose. Because it requires only 2 cc. of normal saline solution for the injection of 0.1 Gm. neoarsphenamine, this drug may be injected intramuscularly in infants and may therefore replace sulpharsphenamine. MacKee[9] suggests giving one-half the dose in each buttock simultaneously and Dennie and Cole both recommend epifascial injections under the skin in the parietal region. Jeans and Rosen favor intravenous arsenical injections in the jugular vein, an easy method once one has been initiated into the technic. Sulpharsphenamine and bismarsen (bismuth arsphenamine sulfonate) may be used in place of neoarsphenamine but they are apparently less effective and more toxic, and their advantages over neoarsphenamine are apparent rather than real. Mapharsen bids fair to rival or replace neoarsphenamine, because of its effectiveness and lower toxicity, and it is being used routinely in many clinics. A dosage of 10 mg. would be equivalent to 0.1 Gm. neoarsphenamine.

Stovarsol or acetarsone may be given intravenously but its chief virtue lies in its effectiveness when given by mouth to small patients, who for one reason or another cannot be satisfactorily treated by injections. The drug is available in 0.25 Gm. tablets and a common treatment technic is to begin with one-fourth of a tablet, increasing slowly to one tablet daily by the second or third week, and then two or three tablets daily until a total of 24 to 30 Gm. have been received, with or without rest intervals. This is to be repeated until a total of 60 or even 90 Gm. have been administered. Hoffman[10] advocates combining this treatment with mercury inunctions (0.1 Gm. of 33 per cent calomel ointment per kilogram) or bismuth injections, and with neoarsphenamine. Acetarsone is not recommended, except for supplementary treatment or where other treatment is not available, and I believe it should be used in conjunction with mercury inunctions in cases where arsenical and bismuth injections are not available, or during intervals between injection courses. Coppolino[11] considered bismuth alone equal to acetarsone in its ability to heal lesions and possibly superior to it in effecting an earlier reversal of the serologic reaction. Givan and Villa[12] have reported favorably on acetarsone given intravenously in children who reacted unfavorably to neoarsphenamine.

In active cases of early prenatal syphilis it is preferable to begin with a course of arsenical injections followed by bismuth and in no active case should less than twenty-four injections of the arsenical and thirty injections of an insoluble bismuth or its equivalent in mercury be given. If treatments are carried out regularly and with only short rest intervals, a much smaller total quantity of the drugs will be required than otherwise. If the mother has been adequately treated during pregnancy, a limited amount of treatment should be carried out for the child unless the serologic reaction becomes positive, in which case the treatment should be pursued as stated. In over 50 per cent of cases so treated the child is likely to be asymptomatic and seronegative, but unfortunately it is extremely difficult to keep clinic children under routine treatment, even with social service agencies, and almost hopeless to attempt it otherwise.

(3) *The treatment of late prenatal syphilis,* that is, treatment instituted more than two years after infection, is somewhat analogous to the recognized treatment of the late syphilitic adult, modified to meet the requirements of a younger age. As in the adult syphilitic, treatment should be individualized to a certain extent, with the thought constantly in mind that the patient rather than the disease, is being treated. It is this group that offers most obstacles to successful therapy, and that requires it most. One of our patients received fifty-eight injections of arsphenamine and neoarsphenamine and 138 of bismuth and mercury salicylate. It is at this time that the tabetic and paretic juvenile is uncovered and that patients with active eye lesions appear, or reappear, in the syphilis clinic. Interstitial keratitis is the leading symptom for admission, and unless thoroughly treated for a very prolonged period

it is likely to relapse and cause permanent disability, if not blindness.

In this stage of prenatal syphilis, routine therapy should be accompanied by frequent physical check-ups and urinalyses, routine serologic tests, occasional blood counts, and eye ground and spinal fluid examinations. In thirty cases we recorded twenty-one negative and nine positive spinal fluid tests, the latter including the tests of five tabetic and two paretic patients. The physician carrying out the treatment should also be alert for such signs as early cutaneous drug reactions, salivation, loss of weight and renal irritation. Single or accumulative overdosage must be avoided. Pushing dosage to the edge of tolerance accomplishes little or nothing of benefit to the patient. On the other hand, inadequate dosage, and inadequate periods of treatment, should be guarded against. Repeatedly negative serologic tests in asymptomatic patients may encourage a false optimism. On discontinuance of treatment, serologic tests and physical examinations should be carried out, first at six months and later at yearly intervals until adult life and later. While only routine treatment is discussed in this paper, it must be clear that in the treatment of syphilis, as in the treatment of any other disease, knowledge, skill, judgment and clinical experience are important requisites.

Aside from increased dosage in older children, age may favor a change in technic of treatment. After the third year it is usually possible to inject arsenicals intravenously by using a hypodermic needle. The dosage of neoarsphenamine varies from 0.1 to 0.3 Gm. depending upon the usual factors of weight, sex, age and tolerance. More injections as well as larger individual doses are required in the late prenatal cases, and in those who have reached physical maturity the dosage and treatment are identical with that of adults. A course should comprise twelve to fourteen intramuscular injections of bismuth or mercury salicylate and eight intravenous injections of neoarsphenamine, arsphenamine or mapharsen. These drugs, given in alternate series, with appropriate rest periods, should be administered over a period of two or three years.

Specialized treatment considerations, particularly the various types of fever therapy, cannot be discussed at this time except to mention that their use should be restricted to selected cases, such as "Wassermann fast" and neurosyphilis cases. Fever therapy to be effective requires temperatures of 104° to 105° F. and additional chemotherapy, and I do not believe it should be used as a routine procedure. Kidd[13] has reported favorably on malaria therapy, and Solomon and Epstein[14] on combined tryparsamide and fever therapy in neurological cases. Dennie[15] advocates routine fever therapy by means of hot baths in conjunction with routine chemotherapy.

In our series neoarsphenamine and bismuth salicylate were used in 101 cases, sulpharsphenamine and bismuth salicylate in twenty-nine, neoarsphenamine and mercury inunctions in eighteen, and sulpharsphenamine and mercury inunctions in thirteen. Mapharsen, bismarsen, acetarsone, arsphenamine, tryparsamide, mercury salicylate, foreign protein therapy, fever therapy, iodobismutol and iodides were used irregularly in conjunction with other drugs and not adequately enough to evaluate their effectiveness.

Conclusion

I have considered adequate treatment of *early* prenatal syphilis as treatment over a period of two or three years with a total of twenty-four or more injections of an arsphenamine and thirty or more injections of an insoluble bismuth or mercury, with the exception of certain comparatively asymptomatic infants who received thorough treatment in their early months of life and then remained symptom free. In the cases of *late* prenatal syphilis I would increase the requirement for routine minimum treatment to at least three years of treatment totalling twenty-five to thirty intravenous injections of neoarsphenamine or mapharsen and forty to seventy intramuscular injections of insoluble mercury or bismuth.

Thirty-one of the early prenatal syphilitics (65 per cent) appear to have been adequately and successfully treated, though this high percentage may be accounted for by a liberal

interpretation of treatment during the first six months of life.

Fifty-three of the late prenatal syphilitics (33 per cent) were apparently adequately treated. The inadequately treated group includes a number of patients who have been very thoroughly treated but are not symptom-free and are very likely incurable.

Fifty patients are still under treatment, but judging from past performances more than half of these will become delinquent before completing their treatment. Woodburne[5] has emphasized that minimum treatment during latency does not cure the disease and Dennie[15] believes that the latent, seronegative phase is the most effective time to treat syphilis energetically.

This review of a series of cases of prenatal syphilis, whose medical care was individualized to a degree paralleling that obtainable in private practice, discloses the inadequacies of a treatment program where the determination of treatment rests with the patient or parent. It emphasizes the need of a social service follow-up system to get the patient to the doctor regularly over a prolonged period of time. It also indicates the necessity of careful, detailed history-taking, careful physical and serologic studies, and complete recording of findings.

Prenatal syphilis is preventable and curable in a large percentage of cases, if treated in the manner outlined, but its complete eradication lies in the dim and distant future. The earlier the institution of treatment, the better and more certain the results.

The most economical and effective time to treat prenatal syphilis is obviously during the mother's pregnancy and one cannot emphasize too strongly the need of routine serologic studies in all cases of pregnancy, regardless of the social status of the patient. There is no excuse for failure to do repeated serologic tests during prenatal care, at term, and following it.

Until that utopia is reached when all women with syphilis receive adequate treatment throughout their pregnancies, we will continue to face the difficult and unsatisfactory problem of the syphilitic child.

BIBLIOGRAPHY

1. Cole, H. N.: Congenital and Prenatal Syphilis. J.A.M.A. **109**:580 (Aug. 21) 1937.
2. Venereal Disease Information, **14**:213 (Sept.) 1933.
3. Schowalter, R. P.: Congenital Syphilis. Wisconsin M.J. **33**:39 (Jan.) 1934.
4. Venereal Disease Information, **18**:97 (Apr.) 1937.
5. Woodburne, A. R.: Newer Methods of Treatment in Syphilis of Childhood. J. Michigan M. Soc. **33**:503 (Sept.) 1934.
6. Dennie, C. C.: Syphilis. New York, Harper and Bros., 1928.
7. Stokes, J. H.: Modern Clinical Syphilology: Diagnosis, Treatment, Case Studies, ed. 2, Philadelphia, W. B. Saunders Company, 1934.
8. Smith, Frank R., Jr.: Congenital Syphilis in Children. Am. J. Syph. and Neurol. **19**:532 (Oct.) 1935.
9. MacKee, G. M. and Cipollaro, A. C.: Skin Diseases in Children. New York, Paul B. Hoeber, Inc., 1936.
10. Hoffmann, E.: Congenital Syphilis in the Light of Thirty Years' Investigation of the Spirochete and Twenty-Five Years' Experience with Salvarsan, J. Pediat. **9**:569 (Nov.) 1936.
11. Coppolino, J. F.: Acetarsone in Treatment of Congenital Syphilis; Comparison with Bismuth Therapy. Am. J. Dis. Child. **48**:272 (Aug.) 1934.
12. Givan, T. B. and Villa, G.: Intravenous Use of Acetarsone in Congenital Syphilis. Am. J. Syph. Gonor. and Ven. Dis. **20**:275 (May) 1936.
13. Kidd, R. A., Jr.: Malaria Treatment in Congenital Syphilis. Ohio State M.J. **32**:645 (July) 1936.
14. Solomon, H. C. and Epstein, S. H.: General Paresis: Treatment by Tryparsamide—Induced Fever Sequence. Am. J. Syph. Gonor. and Ven. Dis. **20**:281 (May) 1936.
15. Dennie, C. C.: Monograph being published.

Precipitation Tests for Syphilis*

By W. F. LORENZ, M. D.
Madison

MANY blood tests have been developed during the last ten or fifteen years. Some have been distinct improvements over the former methods. Most of the newer and better tests are of the flocculation type. Practically each new test, although in some instances its newness amounts to a trifling change in technic, is associated with a name, implying thereby some entirely new feature, new quality and greater efficiency.

Were all this to remain strictly within a medical circle, experience and time would evolve some satisfactory standards, but test-

* Read in part before the Fourteenth Annual Meeting of the North Central Branch of the American Urological Association, Madison, Oct. 23, 1937.

ing blood for syphilis has become popular; legislatures have acted, even to the extent of specifying a certain test by name. In view of this and the many perplexing problems that arise because of limitations in any laboratory test for syphilis in the nature of indefinite findings, conflicting reports, marginal or so-called doubtful reactions and generally the clinical application of these laboratory data, it would seem desirable that the clinician be well informed concerning the commonly used tests in order that he may be a source of reliable information and possibly get more clinical satisfaction from a laboratory procedure.

History of Tests

In 1906, Wassermann, Neisser and Bruck reported a complement fixation test for syphilis in apes. Two weeks later, working independently, Detre reported a similar test for syphilis in human beings. In the following year Michaelis[2] described the first precipitation test for syphilis. He found that the simple addition to the blood serum of the saline extract of syphilitic liver used by Wassermann in the complement fixation test produced a visible precipitation. However, very little was done with this rather simple procedure. In those early days it failed to even approach the value of the complement fixation test and in the succeeding eight or ten years improvements in the complement fixation procedure entirely overshadowed the simpler precipitation tests. Some progress, however, was made even at that early date by Jacobstahl,[3] Bruck,[3] Hecht,[4] Meinicke,[5] Sachs and Georgi,[6] Vernes,[7] Dreyer,[8] and others, but these improvements did not result in a test equal to the complement fixation method. The most substantial improvement was made by Kahn[9] who first reported his test in 1922. He refined the lipoidal emulsion and studied some of the physiochemical properties that appear to be essential for a satisfactory precipitation test. At the International Laboratory Conference held in Copenhagen in 1928, Kahn's and Müller's[10] precipitation tests were shown to be equal, if not in some respects superior, to the ordinary complement fixation procedure. As a result of this demonstration the Conference recommended the use of both precipitation and complement fixation (Wassermann) methods of testing blood for syphilis.

Further improvements followed and in the last ten years a number of precipitation tests have been developed that appear to be improvements over the Kahn test. The later developments all have the characteristic of an end result which is not an increased turbidity with a syphilitic blood but a readily visible discrete precipitate or the formation of large aggregates that float or are suspended in a clear medium. These latter tests are therefore generally referred to as of the clearing type in contrast to the Kahn test which shows up as positive by degrees of turbidity or opacity. In general, the advantage of the clearing types of reaction over the turbidity type is the ease with which a positive result can be read, and the lesser number of so-called doubtful or marginal reactions. The clarification tests that have been quite generally used are the Kline[11] (which is a slide test examined by magnification), the Meinicke (M.K.R),[12] the Hinton,[13] the Eagle,[14] the Rytz,[15] the Rosenthal,[16] and some others.

Comparative Values

It is safe to say that the relative value of the several rather widely used precipitation tests, particularly those having the characteristic of clarification, and therefore also referred to as flocculation tests, rests primarily on performance rather than on any particular merit in the technic itself. During the last ten years these flocculation tests for syphilis have been so well developed that they surpass in some respects the complement fixation (Wassermann) type of test, but both methods still appear to be necessary for good serology.

Both complement fixation and precipitation or flocculation tests for syphilis depend on the presence of the same substance in the blood serum. These tests react positively when the blood contains a substance which has been termed reagin. This is presumably an antibody that develops in the human being or animal infected with syphilis. It has many of the characteristics of a true immune body. It is attached to or associated with

the globulin fraction of blood serum. It appears in the host about six or seven days after the initial lesion has developed. It is present in large amounts during the height of disease activity and disappears as the disease subsides no matter whether this occurs spontaneously or because of antisyphilitic therapy. While there is still much difference of opinion as to the true nature of this so-called reagin, the fact that syphilitic blood has a certain specific property that behaves much like a true antibody is indisputable.

Analogous to Widal Test

It is possible to draw an analogy between the Widal and these flocculation tests for syphilis. The fundamental mechanism appears to be the same. The visible reaction that takes place in the test tube or on the slide is strikingly similar. In the course of typhoid fever an antibody appears in the blood. It is contained in the serum and is associated with the globulin fraction. Such a serum will agglutinate typhoid bacilli. This agglutination appears as distinct aggregates or clumps of organisms, and constitutes a positive Widal reaction. If we had a true analogy then an emulsion of spirochetes should likewise agglutinate and form clumps in the presence of syphilitic blood. Unfortunately, this is not the case. Spirochetes obtained from lesions or cultures are not agglutinated with a syphilitic serum. Originally it was thought by Wassermann, Detre, and others, that the blood tests depended upon an emulsion of spirochetes. This, however, was soon shown to be not a fact. On the other hand an emulsion made from the alcoholic extract of normal tissue results in the suspension of very fine particles of lipoid. These minute particles behave in the flocculation test just as the typhoid bacillus behaves in the Widal reaction. The tests for syphilis are therefore not truly specific from the standpoint of immunology but the specific manner in which these fine particles of lipoid agglutinate in the presence of syphilitic serum makes the entire phenomenon strikingly similar.

In short, instead of dead typhoid bacilli such as used in the Widal test, in the flocculation tests for syphilis a suspension of very fine particles serves in the same manner. These fine particles behave in the test just like a suspension of organisms. The phenomenon of agglutination is the same and the visible end results are the same. These fine particles are visible under the microscope and are also macroscopically visible in some tests. The manner in which this lipoidal suspension is made determines in a great degree the size of these particles and their behavior in the presence of syphilitic serum. Certain physiochemical conditions may favor flocculation in the presence of reagin and, in general, optimum conditions must be maintained to get the desired reaction. These optimum conditions concern such factors as the presence and concentration of an electrolyte in the form of sodium chloride, and the use of fortifying substances such as the sterols, glycerol, balsams, etc., according to the various methods in which these lipoidal suspensions are made. These added reagents enhance the agglutinability of these finely dispersed particles when in contact with syphilitic blood. But let us ignore for a moment the various modifications in the preparation of this lipoidal emulsion. The point I wish to make is that in the end one has what may be termed a "synthetic spirochete" in suspension and that blood from a syphilitic person has the property of agglutinating or causing the aggregation of these "synthetic spirochetes".

Simple and Direct

The flocculation tests for syphilis are simple procedures. A lipoidal suspension is mixed with blood serum. Certain physiochemical conditions are necessary to promote a reaction. At the end of a certain period of time, depending upon what technic is used, the agglutination or aggregation of these lipoidal bodies is visible either grossly, as in the Kahn, Eagle, Hinton, and Meinicke tests, or by aid of a microscope as in the Kline test and the slide methods adapted to the macroscopic tests.

All the various flocculation tests for syphilis are simple in that they are direct in contrast to complement fixation tests which reach a result by a very indirect method of

detecting the presence or absence of reagin in the serum. The complement fixation tests begin like the flocculation or precipitation tests in that a lipoidal emulsion is mixed with the blood serum to be tested. However, in the complement fixation test the emulsion is of such a fine nature, the particles are so small and so dispersed that no visible reaction takes place when these particles form larger aggregates in the presence of reagin. One must use some other means of detecting whether or not these lipoidal bodies in suspension (our "synthetic spirochete") have been agglutinated or not. This is where complement comes into the picture. It has long been known that whenever a specific antibody and the infecting organism are brought in contact, complement, if present, is fixed or bound (Bordet—Gengou). This attachment is so firm and final that it cannot be broken down. For example, if complement is added to a mixture of typhoid bacilli and serum from a typhoid patient, the complement will be bound into a fixed union of all three factors, that is, the typhoid bacilli, the antibody contained in the serum and the complement. The complement is then tied up; none is available or free to enter into any other reaction in which complement would take a part. But this binding or fixing of complement is not a visible phenomenon; it is not detectable by any means known at present other than the use of some combination that depends upon complement for its visible reaction. Therefore one adds to this first mixture of complement, lipoidal emulsion and patient serum, after a period of time, a hemolytic system that will react by visible hemolysis if complement is free and available, or show no hemolysis if complement is not available. In other words, if the patient's serum contains reagin and the lipoidal particles agglutinate, the complement added to the mixture becomes fixed and is therefore not available. Under such circumstances the blood cells of the hemolytic system that are sensitized but still intact when added will remain intact. They will not undergo hemolysis, thus proving that complement was fixed and that the serum contains reagin, the syphilitic antibody. This would constitute a positive reaction.

Obviously, complement fixation is a much more complicated procedure than the direct precipitation or flocculation tests. There are many technical difficulties to be surmounted. The hemolytic system alone, necessary to visualize what can be seen directly in the flocculation procedure, means immunizing rabbits with alien blood corpuscles from sheep, human beings, oxen, chickens, etc., in order to produce the specific antibody (hemolysin). The complement used requires pooled blood from several guinea pigs. We use from twelve to fifteen daily. A fresh suspension of blood corpuscles is a daily necessity. Sheep blood is most frequently used. Then, there are critical incubation periods; some use icebox, others heat. We use mechanical shaking in addition to heat. All the various materials that enter into the test must be standardized and a unit relationship must be maintained. For example, if an excess of complement were added at the beginning, more than the lipoidal emulsion and reagin combination could fix, such excess would be available to hemolyze the corpuscles that are later added and what would otherwise be a positive reaction would then show up as a negative result. An insufficiency of complement would work in the other direction.

Why Use Other Tests?

All of this naturally justifies the question: Why make complement fixation tests if precipitation and flocculation tests are simpler and as good, or better? Unfortunately, both are still useful and necessary. In some instances a blood is positive in a complement fixation test and doubtful or even negative in flocculation tests. Usually it is the other way around. In my own experience, complement fixation is still a better test for spinal fluid than flocculation and so, despite the extra amount of work, the added time and material, for the present at least, complement fixation tests are still necessary.

The precipitation or flocculation tests while direct and relatively simple are nevertheless also subject to technical error. The physical state of the lipoidal suspension is very important and, as already pointed out, several different methods of making the

suspension have been proposed. Temperature must be optimum for flocculation. Above or below a certain point reactions do not take place. Flocculation is enhanced by agitation. This again must be properly timed and optimum to be of value. Centrifugation also plays an important role in making the aggregated particles more visible. There is a range in which these various physical factors have a favorable influence upon the test; above and below this optimum the effect is unfavorable.

Some flocculations can be rapidly performed, that is, within an hour. Others take as long as eighteen hours. Some can be performed with very small amounts of serum; others require larger amounts. As a general proposition, speed tends to make a test less specific and less sensitive. Short cuts almost invariably lead to difficulties. Excepting for emergency purposes, it appears best at present to use the somewhat longer technics although the Eagle Micro and the Davies Micro-Hinton appear to be highly sensitive and specific as well, and both are rapid methods.

Unfortunately, the flocculation tests cannot entirely supplant the complement fixation tests for the present at least. For some unexplained reason occasionally a syphilitic blood will react postively with complement fixation and negatively with flocculation, but more frequently, as mentioned, it is the other way around. That is, flocculation tests are more delicate or more sensitive and give a positive result earlier in syphilis, in a larger percentage of syphilis, and continue positive longer in the course of syphilis. But, unless very carefully performed and controlled, this increased sensitivity may be offest by a lack of specificity. A test is 100 per cent specific when it is positive only in syphilis. If a test gives a false positive, that is, a positive reaction in a nonsyphilitic case, it is not 100 per cent specific. Any test, either flocculation or complement fixation, can be made highly sensitive, as, for example, the Kahn Presumptive or Kline Exclusion, but with such an increased sensitivity there is a loss in specificity. Complement fixation can be made very sensitive but with the same result, that is, loss in specificity. If a test is held at 100 per cent specificity, the best, and in the hands of the originators, will give a positive reading in approximately 80 to 85 per cent of syphilis, that is, syphilis in all its various clinical states, active, latent, under therapy and apparently arrested from a clinical standpoint. I am inclined to prefer a procedure that remains 100 per cent specific with as high a sensitivity as such specificity will permit. As a clinician, I seriously question the value or application of a test that remains positive long after the disease has become completely arrested. Some serologists, in their anxiety to discover syphilis, seem to ignore entirely the fact that syphilis can be clinically cured. A really good test is one that gives the most information, which means, in syphilis, reactions that reveal activity of the disease and that parallel its clinical course.

Nature of Tests

The following is a very brief description of several precipitation tests that are commonly used in this country. At this point I wish to state that none of the tests developed abroad is equal to the American technics when judged by the two important properties, viz., specificity and sensitivity. In describing the commonly used American methods one can begin by referring to the fundamental similarity that exists in these tests.

All of the modern tests begin with an alcoholic extract obtained from normal tissue. This is the so-called stock antigen. From this stock antigen an emulsion is prepared. This is a suspension of small particles of a lipoid material. The latter is referred to as the antigen emulsion or indicator. Originally Wassermann and Detre, as well as others, assumed that this antigen had to be specific; in other words, an emulsion of Spirochaeta pallida. This was shown to be not a fact by Landsteiner,[17] Michaelis[18] and others. They found that an extract from normal tissue, especially heart muscle, was not only a satisfactory substitute for the originally used spirochetal emulsion but actually superior to the latter. Since this discovery all so-called antigen emulsions used in either complement fixation or precipitation

tests begin with an alcoholic extract of heart muscle.

However, practically all investigators have found as originally shown by Noguchi[19] that a straight alcoholic extract may contain properties which are not satisfactory. Therefore ether soluble fractions of the heart muscle are removed. Some technics go further in an effort at refining this extract by removing the acetone soluble fraction. These efforts at refinement have resulted in identifying this tissue extract as a lecithin. However, this is not yet final. In short, there is no difference, at least no important chemical difference, in the final extract used in most of the present day precipitation and complement fixation tests.

In the next step, however, there are numerous variations developed by original investigators resulting in the many names now associated with laboratory tests for syphilis. Practically all add a fortifying substance to the alcoholic extracts. Cholesterol, first suggested by Sachs, is commonly used but in different concentrations and at different periods in the technic of the test. This applies to the Kahn, Kline, Hinton, and other tests. Eagle adds not only cholesterol but corn germ sterol as well. Hinton adds cholesterol and has also used glycerol in making the emulsion. Different salt concentrations are used and other apparently minor technical differences serve to identify several of these tests with a proper name. However all of these technics have something in common; that is, first, fortification of the antigen with a sterol and, finally, the production of a suspension of fine particles of a lipoid material.

In the next step considerable variation is found in the amount of emulsion and serum used. There is also variation in such physical aids as heat, agitation and centrifugation. Finally, there is considerable variation in the element of time set for the reaction to take place; this ranges from a few minutes to eighteen hours. The latter becomes a very practical problem when a serological service is attempted for physicians at a distance where the time required for transportation of blood specimens and reports through the mail must be considered.

Some tests have been developed which can be satisfactorily carried out with very small amounts of serum, again a very practical matter especially when dealing with infants or others from whom a large amount of blood cannot be readily obtained.

In some tests adjustments have been made to make them highly sensitive, in fact so sensitive that positive reactions are quite frequently obtained in nonsyphilitic cases. Such highly sensitive tests may be used as a very critical means of excluding syphilis, although even in that respect they are not 100 per cent efficient. Among these tests are Kline Exclusion and the Kahn Presumptive tests. In my own experience neither of these procedures can be safely used as a routine single test, nor is this advocated by their originators.

Conclusions

I believe one can summarize the present day serodiagnostic procedures as follows:

No European method (Müller, Meinicke, Sachs, etc.) is either as specific or sensitive as several American methods. The various American precipitation and flocculation tests (the Kahn, Kline, Hinton, Eagle, Davies Micro-Hinton and the Eagle Micro) are approximately equal in specificity. The Hinton and Eagle tests and technics developed from them, are especially sensitive.

In seeking to select a test or tests for a laboratory service such as the Psychiatric Institute of the University of Wisconsin attempts, that is, one dealing with clinicians at a distance, the question becomes largely a matter of what technic best lends itself to a serological service which must be carried on without opportunities for immediate conference or consultation and yet be reliable and prompt. We have been working on this problem and the result will appear in a subsequent publication.

In the event a physician wishes to have some one particular test performed, I will briefly mention the characteristics and requirements for several of the commonly used American methods. The following is an incomplete list of American serodiagnostic tests. All are uniformly good and rather widely used. The description is sketchy and

does not convey more than a few characteristics of the particular test in question. Those interested beyond this point can find a very complete description, as well as a discussion of many special features in relation to clinical application, in the references that are appended.

1. The Kahn Diagnostic:[20] A widely used precipitation test in this country and abroad. The serum is mixed with three different amounts of antigen emulsion. The mixture is shaken. It may be incubated and, in positive cases, a visible precipitate forms. The test requires about forty-five minutes. The end results are quite definite but marginal or doubtful reactions are fairly frequent and difficult to read. The test is safely specific in experienced hands and approximately 75 per cent sensitive. Approximately 1½ to 2 cc. of whole blood are required.

2. The Kahn Presumptive: Performed in the same manner as the Kahn Diagnostic but the antigen is made very sensitive by an addition of the ether soluble part of the heart muscle. This results in a very sensitive test but specificity is in danger, so much so that nonsyphilitic bloods may give a positive reaction. Kahn recommends this procedure as an adjunct to the Kahn Diagnostic. It is an effort to rule out syphilis if possible. In other words, a blood test that is negative to the Kahn Presumptive is presumably nonsyphilitic. On the other hand, blood that is positive to the Kahn Presumptive must be further tested by the Kahn Diagnostic or some other test to determine whether this is a reaction due to syphilis or something else. Time required about forty-five minutes. The amount of whole blood, approximately 1½ to 2 cc.

3. The Kline:[21] A slide method in which the results are read under the miscroscope. A special antigen beginning like all others now in use but the cholesterol is added at a different time. A very small amount of serum is mixed with the antigen emulsion and cholesterol on a slide. The mixture is shaken and heated. A positive blood shows up as an agglutination of fine particles. This test is highly specific and possibly slightly more sensitive than the Kahn Diagnostic. However, this depends upon the technician. Time required, approximately thirty minutes. Amount of whole blood, approximately ½ to 1 cc.

4. The Kline Exclusion: This is a modification of the original Kline in the direction of increased sensitivity. The technical performance is the same excepting for concentration of the antigen emulsion. The Kline Exclusion seeks to do what the Kahn Presumptive is intended for, namely, to exclude syphilis by a very delicate test. But as in all other efforts of this kind, specificity is lost; false positives are frequent and it can be used only as a part of a serological examination.

5. The Hinton[22] (Massachusetts General): Begins with an alcoholic extract of heart muscle from which the ether soluble fraction has been removed. The antigen emulsion is made up in a special way. The serum and emulsion are mixed, shaken and incubated for eighteen hours, although a rapid reading may be made if necessary. The latter, however, is not as sensitive as the long incubation method. In either case the reading is made after centrifugation. A positive result appears as a distinct flocculation floating in a clear fluid. This test is 100 per cent specific and approximately 80 to 85 per cent sensitive in competent hands. Time required sixteen to eighteen hours. About 2 cc. of whole blood are required.

6. Davies' Micro-Hinton[23] (Massachusetts General): Davies has applied the Hinton type of test to a method in which small amounts of serum are used. The micro method is equal in every respect to the macro method. The general technic and final results are the same. As with some other micro methods, there appears to be increased sensitivity, and doubtful or marginal results are relatively less frequent. The time required is approximately thirty minutes, and the amount of whole blood necessary is approximately ½ cc.

7. The Eagle[24] (Johns Hopkins Hospital, Baltimore, Md.): This is also a clearing type of test. It starts with an alcoholic extract of heart muscle with the ether soluble fraction removed but the extract is fortified with both cholesterol and corn germ sterol. The emulsion made from this stock solution has some especially good qualities in that the suspended material is very uniform. The test is carried out either by a thirty minute incubation at 56° centigrade of the serum and antigen emulsion mixture or a four hour period at 37° centigrade. Agitation is used and centrifugation is the last step followed by salt solution addition. A positive result appears as a very definite formation of particles floating in a clear medium. This test is 100 per cent specific and is approximately 80 per cent sensitive. The time required is approximately four hours and the amount of whole blood necesary is about 2 cc.

8. The Eagle Micro[25] (Johns Hopkins Hospital): Using small amounts of serum in a somewhat differently prepared emulsion but made up from the same stock antigen Eagle has developed a microscopic test that proved to be very satisfactory in our hands. After the serum and emulsion are mixed the test is shaken in a machine followed by thirty minutes of incubation at 37° centigrade and ten minutes centrifugation. The contents of tube are placed on a slide and the result read by a low power magnification. The results are very definite and doubtful reactions on other tests are much more easily recognized as either distinctly positive or negative. This method is 100 per cent specific and highly sensitive, exceeding in this respect the Kahn Diagnostic, the Hinton Macro or the Eagle Macro. It is a particularly good test where a result must be promptly reported to the clinician and also where the blood specimen is small in quantity. Time required approximately forty-five minutes. Whole blood necessary about ½ cc. (See plates on two following pages.)

*Plate No. I (Eagle Micro Negative).

The small particles are quite uniformly spread over the entire field. There is no agglutination or clumping. This constitutes a negative reaction.

Plate No. II (Eagle Micro Doubtful).

The small particles have more or less agglutinated into slightly larger aggregates. This is a doubtful or marginal reaction. It occurs in the course of syphilis and can be obtained by a mere dilution of a positive serum. That is, by reducing the amount of reagin in a serum one can reduce the degree of agglutination of these particles.

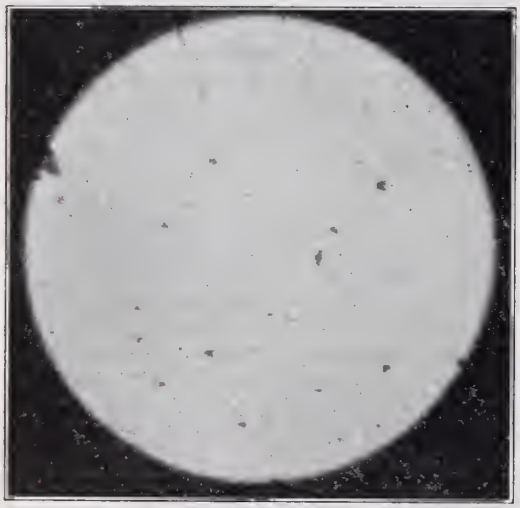


Plate No. 111 (Eagle Micro Positive).

There is a distinct clumping of particles with a clear medium surrounding these larger aggregates. This illustrates a clearly positive reaction.

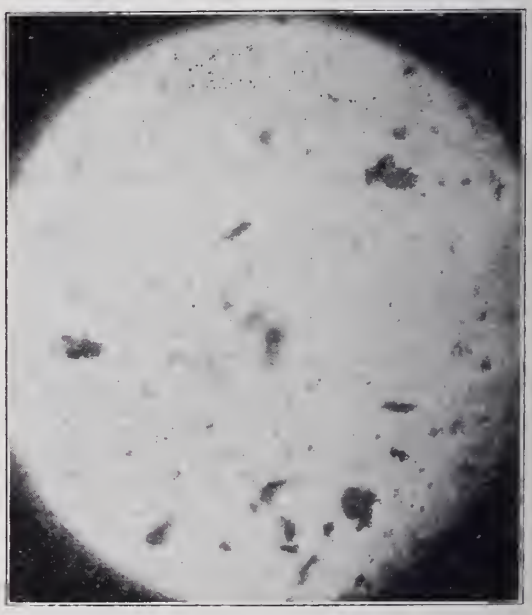


Plate No. IV (Eagle Micro Positive).

There is a greater degree of agglutination in which large clumps are formed. These are readily visible to the unaided eye. This constitutes a strongly positive reaction.

* In the reproduction of the plates the negative reading does not visualize the numerous fine particles that appear in the entire microscopic field. The partial and complete agglutintaions, however, are evident in the positive illustrations.

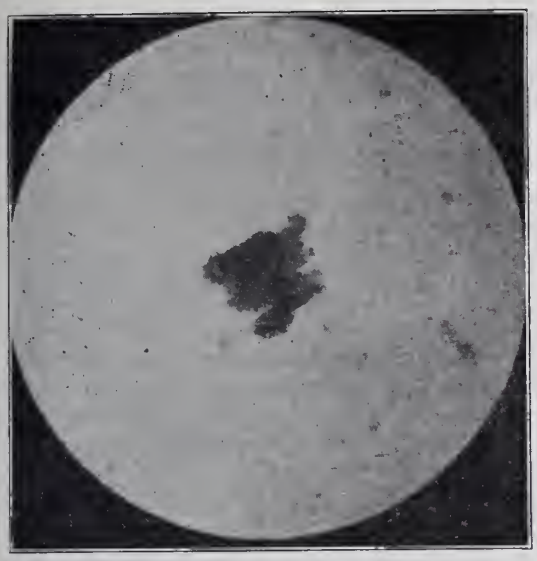


Plate No. V (Eagle Micro Positive).

There is a high degree of agglutination of particles, sufficient to form large masses. This is a very strongly positive reaction. Macroscopically the particles may form one large mass that is completely precipitated, leaving a clear supernatant medium.

9. The Rytz[15] (Minneapolis General): This is also a clearing type of reaction. Stock antigen is similar to the original Noguchi acetone insoluble extract of heart muscle. The emulsion is made up about like that of the Eagle Macro. The blood serum is treated with one-half saturation ammonium sulphate as a preliminary step before it is mixed with the emulsion. From then on shaking, incubation and centrifugation are employed quite like the other tests. The end result is a definite flocculation seen in a clear medium. This test has no technical or qualitative advantage over the others mentioned. It has proved to be 100 per cent specific in our hands but not quite as sensitive as some of the other procedures.

BIBLIOGRAPHY

1. Michaelis, L.: Präcipitinreaktin bei Syphilis. Berl. klin. Wchnschr. **44**: 1477–1478 (Nov. 18) 1907.
2. Jacobstahl, E.: Versuche zu einer optischen Serodiagnose der Syphilis. Ztschr. f. Immunitat. **8**: 107–128 (Nov.) 1910.
3. Bruck, C. and Hidaka, S.: Ueber Fällungserscheinungen beim Vermischen von Syphilisseren mit alkoholischen Luesleberextrakten. Ztschr. f. Immunitat. **8**: 476–482 (Jan.) 1911.
4. Hecht, H.: Zum Wesen der Wassermannschen Reaktion. Prag. Med. Woch. **39**: 316, 1914.
5. Meinicke, E.: Zur methodik der serologischen Luesdiagnostik. Munch. Med. Woch. **65**: 1379–1381 (Dec. 3) 1918.
6. Sachs, H. and Georgi, W.: Zur Serodiagnostik der Syphilis mittels Ausflockung dusch cholesterinierte Extrakte. Med. Klin. **14**: 805–809 (Aug.) 1918.
7. Vernes, A.: See in Microscopic Slide Tests for Syphilis, by B. S. Kline, 1932.
8. Dreyer, G. and Ward, H. K.: Simple quantitative serum reaction for diagnosis of syphilis. Lancet **1**: 956 (May 7) 1921.
9. Kahn, R. L.: Simple quantative precipitation reaction for syphilis. Arch. Derm. & Syph. **5**: 570–578 (May) 1922.
10. Müller, R.: Schlusswort. Ztschr. f. Immunitat. **48**: 538–542, 1926.
11. Kline, B. S. and Young, A. M.: Microscopic slide precipitation test for syphilis; preliminary report. J.A.M.A. **86**: 928–931 (March 27) 1926.
12. Meinicke, E.: (Abst.) Eine neue Syphilisreaktion (MKR). Klin. Wchnschr. **8**: 112–113 (Jan. 15) 1929.
13. Hinton, W. A.: Hinton test for syphilis; third modification. J. Lab. & Clin. Med. **18**: 198–205 (Nov.) 1932.
14. Eagle, H.: Studies in serology of syphilis; new flocculation test for serum diagnosis of syphilis. J. Lab. & Clin. Med. **17**: 787–791 (May) 1932.
15. Rytz, F.: Very rapid flocculation method for diagnosis of syphilis; preliminary report. Am. J. Clin. Path. **5**: 159–161 (March) 1935.
16. Rosenthal, L.: Rapid flocculation test for syphilis. Proc. Soc. Exper. Biol. & Med. **27**: 61–63 (Oct.) 1929.
17. Landsteiner, K.: Zur Frage der Komplementbindungsreaktionen bei Syphilis. Wien. med. Wchnschr. **20**: 1565–1575 (Dec. 12) 1907.
18. Michaelis, L.: Die Wassermannsche Syphilisreaktion. Berl. klin. Wchnschr. **44**: 1103–1107 (Sept. 2) 1907.
19. Noguchi, H.: The laboratory diagnosis of syphilis. New York: Paul B. Hoeber, 1923.
20. Kahn, R. L.: Serum diagnosis of syphilis by precipitation. Baltimore: Williams and Wilkins, 1925. The Kahn test. Williams and Wilkins, 1928.
21. Kline, B. S.: Microscopic slide tests for syphilis. Baltimore: Williams and Wilkins, 1932.
22. Hinton, Wm. A.: Syphilis and its treatment. New York: The Macmillan Company, 1936.
23. Davies, J. A. V. (Boston Dispensary, Mass.): Microflocculation test for syphilis. J. Lab. & Clin. Med. **22**: 959–966 (June) 1937.
24. Eagle, H.: Laboratory diagnosis of syphilis. St. Louis: The C. V. Mosby Company, 1937.
25. Eagle, H. and Brand, A. F.: To be published.

NAVY MEDICAL CORPS

An examination of candidates for appointment as Lieutenant (junior grade), in the Medical Corps of the Navy, will be held at all Naval Hospitals in the United States and at the Naval Medical School, Washington, D. C., beginning May 16, 1938.

Candidates for admission must be between the ages of 21 and 32 years at time of appointment, graduates of Class "A" medical schools, and have completed an internship of one year in a hospital accredited for interns by the American Medical Association and the American College of Surgeons.

Those who are interested should write the Surgeon General, United States Navy, Bureau of Medicine and Surgery, Navy Department, Washington, D. C., for further information.

THE WISCONSIN MEDICAL JOURNAL

The Council on Scientific Work

W. S. MIDDLETON, Madison, Chairman EBEN J. CAREY, Milwaukee H. A. SINCOCK, Superior
J. A. EVANS, La Crosse G. W. KRAHN, Oconto Falls

Editorial Staff

MR. J. G. CROWNHART, Madison, Managing Editor

Collaborators

THE COUNCIL

H. P. BOWEN—Watertown
FRED W. POPE—Racine
JOSEPH DEAN—Madison
B. I. PIPPIN—Richland Center
A. H. HEIDNER—West Bend
S. E. GAVIN—Fond du Lac
H. A. JEGI—Galesville
G. R. DUER—Marinette
J. W. LAMBERT—Antigo
JOSEPH F. SMITH—Wausau
F. E. BUTLER—Menomonie
F. G. JOHNSON—Iron River
JOS. LETTENBERGER—Milwaukee

Annual Subscription—Three Dollars-Fifty Cents Single Copies—Fifty Cents

Advertising Representative: Cooperative Medical Advertising Bureau, 535 North Dearborn St., Chicago, Ill.

Address all communications to THE WISCONSIN MEDICAL JOURNAL, Madison

Volume XXXVI DECEMBER, 1937 Number 12

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Copyright by the Society, 1937

« « » EDITORIALS » » »

Distribution of Ureteral Pain

THE difficulties sometimes encountered in a differential diagnosis between lesions of the urinary tract and lesions of adjacent abdominal viscera has long been recognized by most clinicians. Particularly is this true when the lesions involve the right side of the urinary tract.

The frequency with which symptoms ordinarily attributed to diseases of the gastrointestinal tract occur with lesions of the urinary tract is also well known. Brooks[1] in a discussion of this subject stated that nausea and vomiting were in many instances the outstanding symptoms of renal disease. Braasch,[2] in a discussion of this subject in 1920, stated that in his clinic approximately half of the patients with lesions in the right kidney and ureter had had previous operations on the adjacent abdominal organs and in most instances the pathology of the ureter and kidney was not recognized.

Bumpus and Thompson[3] found in the study of 1,001 cases of ureteral stone, that nausea and vomiting occurred in 30 per cent; that in 22 per cent of their patients the symptoms were of such a nature that appendectomy had been performed; that in 16 per cent a diagnosis of cholecystic disease had been made. Others have reported similar findings.

Ockerblad and Carlson studied the distribution of renal and ureteral pain following stimulation of various portions of the ureter with a faradic current by means of a specially constructed electrode introduced through cystoscope. This excellent piece of work was awarded a certificate of merit in the Scientific Exhibit of the American Medical Association at the last meeting at Atlantic City. Ockerblad's and Carlson's study was done on normal subjects and pyelo-ureterograms were made to rule out the possibility of any pathologic change in the urinary tract.

The stimulations were applied at intervals of 5 cm. along the course of the ureter and from these studies was noted that stimulation of the interior of the kidney produced pain which was always referred to the back. Stimulation at 25 cm. from the ureteral orifice produced pain which was felt over the anterior portion of the iliac crest and anterior iliac spine. Stimulation at 26 and 27 cm. produced pain in the region of the anterior iliac spine. Stimulation at a point 10 to 20 cm. from the ureteral opening produced pain which was felt at the same abdominal levels.

This corroborates the clinical reports of many series of cases of ureteral calculi where pain was entirely abdominal in as high as 30

We Wish You A Happy Holiday Season

per cent in some series. Stimulation at points between 10 and 20 cm. produced pain on the inside of the leg also, in some instances radiating to the toes.

Stimulation of the ureter at a point 5 cm. above the ureteral orifice, which is within the area where calculi are often found, produced pain slightly lateral to the midline, below the iliac crest and mesial to McBurney's point. In some instances, pain on the inner or outer side of the thigh was obtained from stimulation at this area.

Stimulation of the lower 2 cm. of the ureter produced pain most always in the midline and in the suprapubic region.

This work of Ockerblad and Carlson provides us with experimental information which should be an aid in the differential diagnosis of intra-abdominal lesions and lesions involving the urinary tract, particularly urinary tract calculi. G. H. E.

REFERENCES

1. Brooks, H.: Discussion; J. A. M. A., 104:713, (Mar. 2) 1935.
2. Braasch, W. F.: Discussion; J. A. M. A., 75:1244, (Nov. 6) 1920.
3. Bumpus, H. C. Jr., & Thompson, G. J.: Stones in Ureter. Surg., Gynec., & Obst., 50:106–109, (Jan.) 1930.

The Doctors Start an Inquiry

UNDER this title the following editorial appeared in the Milwaukee Journal on Tuesday, November 16:

The Wisconsin State Medical Society is doing the needed thing when it launches a fact-finding inquiry into the care of the sick throughout the state and means of improving this care.

Some facts have been gathered from time to time, both by the state organization and the various county units. But there has not been a well-rounded, integrated survey. It is needed, both for the public welfare and the professional welfare of the doctors.

Last winter, in the regular legislative session, a whole series of bills embodying state medicine, or, more accurately, bureaucratic medicine, was dumped into the hopper. The legislature was not prepared for these, the public was not, the doctors were not. The best that could be done, the wisest thing, was not to take the far-reaching steps indicated until facts were known. Health is too vital a thing to experiment with blindly. So the legislature did a good job in rejecting the bills.

But that does not mean that the subject is ended or should be ended. Questions persist. Are all areas of the state getting the medical service that they should? Are costs always within the reach of those of limited incomes who need attention but who do not want the free service that goes to the indigent? Are the full resources of laboratory medicine within the reach of everybody? Are all communities doing what they should?

Our impression would be that some counties have met these problems in a fairly satisfactory way, while others still present perplexing questions from the standpoint of health. This is the impression, but it is for a careful survey to find out.

And the medical profession is best qualified to find out. When the medical bills were rejected, it was proposed that the state finance such a survey. That would have been all right if the legislature had suggested a sum sufficient to make a thorough investigation, and if those appointed to the investigating body had been qualified for the work. The proposal, however, failed. Now the doctors take up the task.

The doctors should lead, but may we suggest that when the medical society organizes this survey it take into account the factor of public interest as distinguished from the professional interest? That would indicate the wisdom of appointing on its committees some laymen of learning and high standing. They would not be there to direct or dominate the inquiry. They would be there as counselors, as weighers of facts that were gathered professionally.

The final report, it seems to us, would then carry the maximum weight that the doctors no doubt want it to carry.

We know that our membership throughout the State will be gratified with this editorial commendation of one important phase of the three-fold program that the Society has initiated this year. The fact that physicians are cognizant of the public interest and viewpoint, as suggested in the next to the last paragraph of the editorial, is demonstrated best by the fact that the Special Committee to Study Hospital Insurance is made up of as many nonphysician members as physician members. Furthermore, the Special Committee to Study the Distribution

of Sickness Care in Wisconsin is spending nine-tenths of its time in the field in bringing into informal meetings with them laymen from every walk of life. In a typical meeting they will have the advantage of the presence of the director of relief, members of the county board committee on relief, the chairman of the county board, the county judge, the director of the pension department, the county superintendent of schools, the county nurse, the city nurse, the president of the P.T.A., newspaper editors, representatives of labor and farm organizations, the local legislators, and the mayor of an outstanding city in the county,—these and many other laymen in the localities visited by the committee give of their time that physicians and laymen may sit around the table and discuss their common problems.

There is no public interest as distinguished from professional interest. Long years have repeatedly demonstrated that anything which will truly and permanently advance the public interest and public health inevitably will likewise result in progress for the medical profession.

Why So Excited?

UNDER the release date of November 18, Dr. Kingsley Roberts, Medical Director of the Bureau of Cooperative Medicine, at 5 E. 57th Street, New York City, sent the following release to the daily papers throughout the country:

"WISCONSIN MEDICAL SOCIETY TO STUDY MEDICAL ECONOMICS

But No Liberals are Appointed to Committee, Roberts Declares

"*Madison*, Wisconsin—J. G. Crownhart, secretary of the Wisconsin State Medical Society announced this week the formation of two committees to study general problems of medical economics and group hospitalization, but the committees were immediately attacked as representing only the point of view of the American Medical Association.

"Dr. Kingsley Roberts, Medical Director of the Bureau of Cooperative Medicine, in commenting on the development stated, 'In view of Mr. Crownhart's recent activities in connection with the proceedings against the Milwaukee Medical Center and the Cooperative Medical Bill introduced in the last session of the Wisconsin Legislature, little can be expected of a constructive nature.

" 'These new committees contain many able people,' Dr. Roberts declared, 'and it is to be regretted that they do not represent the various interests or points of view on health protection. Among the doctors appointed were no signers of the Committee of Physicians' Principles and Proposals. The laymen did not include any of those interested in cooperative medicine. The reports of the committees will undoubtedly represent only the American Medical Association's point of view. And it is probable that Mr. Crownhart will use this committee to counteract all the growing anti-medical society sentiment.' "

We have two comments to make on this newspaper release that seem to us apropos under the circumstances. First of all, the members of these committees were appointed long in advance of the circulation of the so-called principles by the self-appointed "Committee of Physicians." Are we to understand from Doctor Roberts that he would wish a committee that is to make a thorough and impartial study of the distribution of sickness care in Wisconsin to commit themselves before the study opened as to findings? His argument that such should be the case is only an indication that for some reason he is very excited about an impartial study in this State.

Interestingly enough, Doctor Roberts' release was apparently issued before he knew that just a few days previously the Special Committee to Study Distribution of Sickness Care had had the pleasure of a very long conference with four representatives of the tentative health cooperative association at Superior. As an observer we are certain that both the committee and the representatives had a new understanding of their problems at the end of that conference and that a mutual confidence existed.

One of the oldest tricks of the propaganda trade is to attack the motives of study committees before they ever start. We wish to assure Doctor Roberts, however, that this questioning of motives and his reference to alleged conservative leanings of the committee members based upon scant knowledge of their affiliations in Wisconsin, will not affect their desire and continued effort to study sympathetically the factual information presented by any group or any individual, including Doctor Roberts.

. . . . THE PRESIDENT'S PAGE . . . .

The Quick and the Dead

IN RECENT years one agency after another interested in the good of man has thrown the full force of its efforts into a campaign of educational propaganda attempting to stem the mounting tide of accidents on our public highways. Automobile manufacturers have spent whole fortunes striving toward safety through increased mechanical perfection. Laws have been invoked to curb reckless and drunken driving.

But the death rate climbs ever upward!

Almost from the beginning of Wisconsin as a State, our Society has been constantly alert exploring every possible field in which sickness and death might be prevented. No end would be served by reviewing the long list here. Suffice it merely to say that such is our record; that, moreover, the inauguration of many of these public health movements has been accomplished in the face of a lack of public concern, and, at times, even despite the withering opposition of vested interests selfishly opposing the particular movement.

Has the time not come for our profession to take a hand in this holocaust of the highways? In terms of suffering, disability and death it now outranks the group of contagious diseases upon which our whole public health program is largely centered. There are still other reasons why we should take a hand. We, alone, know the stench, the pain, the heartache of it all. We, too, by temperament and training have an uncommon insight into cause and effect; a faculty of getting at the gist of a matter that involves life and death. These are reasons, and ample reasons, why our organization is needed in this important program.

Excessive speed, of and by itself, accounts for fully one-third of all automobile deaths. Speed, moreover, is a definite contributing factor in most deaths classified as due to driving on the wrong side of the road, driving off the road, driving through right of way, and so-called reckless driving. Include all of these and speed becomes a potent factor in nine out of every ten fatal automobile accidents.

Long and sad experience finally proved to us that children simply could not be taught any safe way of playing with cannon crackers and dynamite caps. Over the loud protest of the fireworks industry and even despite considerable resentment on the part of a thoughtless public, we simply had to take these dangerous toys from their hands. How much longer must we continue picking horribly mangled bodies from our highways before we turn to the quite obvious and practical task of taking 60, 70, 80 and 90 miles per hour cars out of the hands of our grown-up children?

Viewed purely as a public health problem, this matter of bringing highway deaths under reasonable control is fairly simple. The difficulty does not lie in the technic of control. The difficulty lies in an astounding apathy on the part of a public in which no one, it seems, has a proper understanding of the awful horror that hovers about the wreckage of a serious highway accident; neither do they have the slightest notion that they or their loved ones might be next in line. If that can only be made a living thought in the minds of all, much progress will have been made. It seems to me that those of us living amid the blood and grime of this mess have the inescapable duty of undertaking a campaign of education sufficiently realistic to goad public interest into demanding that practical and effective measures of control be applied.

James C. Sargent

Society Proceedings

Barron—Washburn—Sawyer—Burnett

The secretary of the Barron–Washburn–Sawyer–Burnett County Medical Society has reported the election of officers for 1938 as follows:

Dr. H. H. Ainsworth, president
Dr. S. O. Lund, vice president
Dr. D. L. Dawson, secretary
Dr. A. S. White, delegate
Dr. A. T. Hume, alternate delegate

Brown—Kewaunee—Door

Dr. W. P. Blount of Milwaukee spoke on "Fractures in Children" at the meeting of the Brown–Kewaunee–Door County Medical Society in Green Bay on November 9. The newly elected officers for the coming year are Dr. W. E. Mueller, president; Dr. L. E. Dockry, vice president; Dr. T. S. Burdon, secretary-treasurer; Dr. N. M. Kersten, president-elect; Dr. P. R. Minahan and Dr. O. A. Stiennon, delegates, and Dr. W. E. Leaper and Dr. W. W. Kelly, alternate delegates.

Calumet

Several members of the Calumet County Medical Society attended the meeting of the Post Graduate Medical Assembly in St. Louis, Missouri, the latter part of October. The group, which included Dr. A. J. Wagner of Brillion, president of the Calumet County Medical Society; Dr. N. J. Knauf and Dr. J. W. Goggins of Chilton, Dr. F. P. Knauf of Kiel, Dr. A. C. Engel of New Holstein, and Dr. R. J. Winkler of Hilbert, made the trip by way of the American Air Lines from Chicago.

At the meeting of the society on November 11 Doctor Goggins reported on the St. Louis session, and Dr. A. J. Wagner showed movies taken on the trip.

The newly elected officers of the society are:

Dr. A. J. Wagner, Brillion, president
Dr. F. G. Zietlow, Brillion, secretary and treasurer
Dr. I. N. McComb, Brillion, censor
Dr. J. W. Goggins, Chilton, historian
Dr. N. J. Knauf, Chilton, alternate delegate

Columbia—Marquette—Adams

The Columbia–Marquette–Adams County Medical Society met at the Friendship Hospital, Adams, on November 9, and it was announced that the next meeting will be held at Portage on December 14.

Dr. R. P. Potter, roentgenologist of the Marshfield Clinic, was the guest speaker, his topic being "Pathological Conditions of the Chest." His talk was illustrated by a series of x-ray plates. An open discussion took place in regard to an immunization program which is to be financed by funds from Columbia County next spring.

Crawford

With his reelection at a recent meeting of the Crawford County Medical Society, Dr. C. A. Armstrong began his eleventh year as secretary of that organization. Other officers named were as follows: President, Dr. H. H. Kleinpell; alternate, Dr. E. T. Ackerman; delegate, Dr. C. A. Armstrong; and Health Committee, Dr. S. M. Welsh, Dr. H. H. Kleinpell, and Dr. T. E. Farrell, Sr.

Dane

Discussion of the 1938 program for both the State Medical Society of Wisconsin and the Dane County Medical Society was the special order of business at the meeting of the Dane County Medical Society on November 9. Plans for the State Society were discussed by Mr. J. G. Crownhart, secretary of that organization, and Dr. L. V. Sprague, president of the Dane County Medical Society, discussed future plans for that body. Other speakers on the program were Dr. W. S. Middleton, dean of the University of Wisconsin Medical School; Dr. J. Newton Sisk, Jackson Clinic; and Dr. J. B. Wear, chairman of the Woman's Auxiliary Committee.

Dodge

The officers who will serve in the Dodge County Medical Society during 1938 are as follows:

Dr. Francis Bachhuber, Mayville, president
Dr. R. R. Roberts, Beaver Dam, vice president
Dr. A. G. Hough, Beaver Dam, secretary and treasurer

Eau Claire—Dunn—Pepin

Five new members were elected to membership in the Eau Claire–Dunn–Pepin County Medical Society at their meeting on October 25. These are: Dr. L. I. Dickelmann, Dr. L. G. Culver, Dr. A. O. Hendrickson, Dr. R. J. Steves, and Dr. L. M. Garrett. The following officers for 1938 have been reported:

President, Dr. H. F. Derge
Vice president, Dr. R. F. Werner
Secretary, Dr. S. L. Henke
Delegate, Dr. R. E. Mitchell
Alternate delegate, Dr. O. M. Felland
Censors, Dr. J. C. Baird and Dr. E. P. Hayes

Fond du Lac

On Thursday, October 21, the members of the Fond du Lac County Medical Society were the guests of Dr. S. E. Gavin, past president of the State Medical Society of Wisconsin, at a dinner party at the Hotel Retlaw, Fond du Lac. At the business meeting which followed it was decided that the plan of sponsoring the well-baby clinic should be referred to a committee, which is to outline a program and report at the next meeting. The following officers were elected for 1938: Dr. E. H. Pawsat, president; Dr. R. L. Waffle, vice president; Dr. A. M. Hutter, secretary-treasurer; Dr. D. J. Twohig, delegate; Dr. J. C. Devine, alternate delegate; and Dr. A. C. Florin, censor. The application for membership by Dr. Virgil A. Toland of Fond du Lac was accepted.

Grant

The members of the Grant County Medical Society met for their thirty-fifth annual session on Monday, October 25, in the Grantland Club rooms, Lancaster. The president, Dr. M. W. Randall, presided.

The scientific program follows:

"Pyogenic Dermatoses"—Dr. R. L. McIntosh, Madison

"Infantile Paralysis"—Dr. A. R. MacLean, Mayo Clinic, Rochester

"Indications for Bronchoscopy"—Dr. Lyman A. Copps, Marshfield

"Errors in the Diagnosis and Treatment of Hyperthyroidism"—Dr. Arnold S. Jackson, Madison

Dr. C. H. Andrew, delegate, gave a report of the recent meeting of the State Medical Society of Wisconsin, and Dr. Milton Trautmann, venereal disease control officer of the State Board of Health, presented a talking movie film on syphilis. Dr. Wilson Cunningham gave a report on the work done in Grant County by the Committee on Tuberculosis Testing. This committee consists of Dr. Wilson Cunningham, Dr. E. H. Spiegelberg, and Dr. Rush Godfrey. Another speaker was Dr. B. I. Pippin of Richland Center, newly elected councilor of the fourth district.

The election of officers resulted as follows: President, Dr. F. H. Baldwin, Bloomington; vice president, Dr. J. D. Glynn, Lancaster; secretary-treasurer, Dr. M. B. Glasier, Bloomington; delegate, Dr. E. C. Howell, Fennimore; alternate delegate, Dr. H. E. Fillbach, Hazel Green; and censor, Dr. C. M. Schuldt, Platteville.

Green

At the fall meeting of the Green County Medical Society on November 2 in the Eugene Hotel at Monroe, the following men were elected by members of the society: Dr. W. B. Gnagi, Jr., Monroe, president, and Dr. L. E. Creasy, Monroe, secretary-treasurer. Dr. E. J. Mitchell, Brodhead, was reelected vice president.

Dr. G. W. Henika, deputy state health officer, spoke on the public health program in Green County. Dr. Milton Trautmann, State Board of Health, Madison, showed a talking movie film on the diagnosis and treatment of syphilis.

Juneau

At the annual meeting of the Juneau County Medical Society the following officers were elected for 1938:

Dr. W. T. O'Brien, Mauston, president

Dr. A. R. Kaufman, Mauston, vice president

Dr. Brand Starnes, New Lisbon, secretary and treasurer

Dr. A. R. Kaufman, Mauston, delegate

Dr. H. C. Meyer, Necedah, alternate delegate

Dr. C. O. Cron, Camp Douglas; Dr. Carl Vogel, Elroy, and Dr. F. H. Ferguson, Elroy, censors

Marathon

The Marathon County Medical Society held its annual meeting on October 26 at the Hotel Wausau, Wausau, at which time Dr. J. M. Freeman, Wausau, was elected president; Dr. F. C. Prehn, Wausau, vice president; Dr. G. H. Stevens, Wausau, secretary; and Dr. R. H. Juers, Wausau, treasurer.

The board of censors will be composed of Doctors P. Z. Reist, H. H. Fechtner, and O. M. Wilson; the program committee of Doctors E. P. Ludwig, H. H. Christensen, and V. E. Eastman; and the legislative committee of Doctors I. M. Addleman, W. C. Frenzel, J. K. Trumbo and Joseph Barber. Dr. S. M. B. Smith was chosen as delegate to the 1938 meeting of the State Medical Society of Wisconsin, and Dr. E. E. Fleming as alternate delegate.

Marquette

The Marquette County physicians have formed a group of their own, a branch of the Columbia-Marquette-Adams County Medical Society. The purpose of this society, which met at Montello recently, is to study any social or economic problems which may arise.

Milwaukee

The Medical Society of Milwaukee County had as its guest speaker on November 12, Dr. Reed M. Nesbit, associate professor of surgery, University of Michigan Medical School. A clinical motion picture on syphilis, in which Surgeon General Thomas Parran, Dr. Charles Gordon Heyd, Dr. John H. Stokes, Dr. Paul A. O'Leary, and others participated, was also shown.

Oconto

A dinner meeting of the Oconto County Medical Society was held at the Alamo Club at Stiles on October 28. Dr. Lewis Jacobs of the University of Wisconsin, Madison, discussed x-ray.

Outagamie

The members of the Outagamie County Medical Society met recently to hold an election of officers. Those named were Dr. A. B. Leigh of Kaukauna, president; Dr. W. O. Dehne, Appleton, vice president; Dr. R. T. McCarty, Appleton, secretary and treasurer; Dr. C. D. Neidhold, Appleton, delegate; Dr. G. W. Carlson, Appleton, alternate delegate; and Dr. D. M. Gallaher, Appleton, member of the board of censors. Dr. C. D. Boyd of Kaukauna, who was host at the dinner which preceded the meeting, presented a program on the diagnosis and treatment of tuberculosis.

Polk

The Polk County Medical Society held its annual meeting at the home of Dr. and Mrs. G. B. Noyes, Centuria, on November 11. The following officers were elected: Dr. H. C. Caldwell, St. Croix Falls, president; Dr. K. F. Johnson, Osceola, vice-president, and Mr. E. C. Swenson, Frederic, secretary-treasurer. Dr. D. A. Maas was elected for three years on the board of censors.

Dr. F. P. Daly of Chippewa Falls, district health officer, was guest speaker. A report of the annual meeting of the State Medical Society of Wisconsin was made by Dr. R. G. Arveson of Frederic.

Racine

Several members of the Racine County Medical Society were guests of the Racine County Dental Society at a dinner program in Hotel Racine on Wednesday evening, November 3, in honor of Dr. M. N. Federspiel, associate clinical professor of surgery at Marquette University. Doctor Federspiel, who formerly practiced dentistry in Racine, spoke on "Maxillofacial Injuries."

The newly elected officers of the Racine County Medical Society are as follows:

Dr. F. B. Marek, president
Dr. E. von Buddenbrock, president-elect
Dr. E. J. Schneller, vice president
Dr. Beatrice O. Jones, secretary and treasurer
Dr. R. M. Kurten, delegate
Dr. T. C. Hemmingsen, alternate delegate
Dr. R. W. McCracken, censor
Dr. R. M. Kurten, executive board member
Dr. A. M. Lindner and Dr. C. O. Schaefer were selected from the floor to serve as members of the Executive Board.

Rock

The annual meeting of the Rock County Medical Society was held in the Monterey Hotel at Janesville on Tuesday evening, October 26. Election of officers was held.

Dr. G. W. Belting, Orfordville, was elected president; Dr. C. R. Gilbertsen, Janesville, vice president; Dr. O. W. Friske, Beloit, secretary-treasurer; Dr. W. J. Allen, Beloit, delegate; Dr. W. A. Munn, Janesville, alternate delegate; Dr. F. W. Van Kirk, Janesville, censor.

Thirty-five members attended the dinner meeting which was followed by a talking motion picture on "Diagnosis and Treatment of Syphilis" presented by Dr. Milton Trautmann, State Board of Health, Madison. Dr. W. J. Allen, delegate to the meeting of the State Medical Society of Wisconsin, gave a report of the recent session of the House of Delegates and outlined the program for the year 1938.

Sauk

Dr. Marcus Bossard of Spring Green, who has practiced medicine for the past fifty years, was honored at a meeting of the Sauk County Medical Society held on October 28 in Spring Green. Approximately twenty-five physicians were present including four from Madison and others from Baraboo, Reedsburg, Sauk City, and Prairie du Sac. After the regular session the remainder of the evening was spent at the home of Doctor Bossard. Guest speakers were Dr. A. M. Schwittay, Dr. Harold Marsh, and Dr. Reginald Jackson, all of Madison. Dr. Reginald Jackson, Jr., showed pictures of places which he and his father visited while on their trip to Europe about two years ago.

Sheboygan

On Tuesday, November 16, the regular monthly meeting of the Sheboygan County Medical Society was held at Rocky Knoll Sanatorium. Members and their wives were the dinner guests of the trustees and director of the sanatorium. Following the dinner the women were entertained at bridge, and the physicians held their annual business meeting.

The following members were elected to offices for the coming year: Dr. F. A. Nause, Jr., president; Dr. C. J. Weber, vice president; Dr. W. G. Huibregtse, secretary and treasurer; Dr. A. C. Radloff, delegate; Dr. A. Pfeiler, alternate delegate; and Dr. John Tasche, Sr., censor. Dr. Joseph Russell was admitted as a new member of the Society.

Miss Alma Johnson, Child Welfare Bureau, Sheboygan, explained the purpose and function of this bureau. Dr. Calvin Yoran, director of Rocky Knoll Sanatorium, presented a very instructive talk, which was well-illustrated by numerous x-ray pictures, on the care of tuberculous patients.

Trempealeau—Jackson—Buffalo

Physicians of the Trempealeau–Jackson–Buffalo County Medical Society held their monthly meeting at Galesville on October 21, arriving for a six o'clock dinner at the Garner Hotel and adjourning to the council rooms of the city hall for a business meeting. Nineteen members were present. Dr. R. L. MacCornack, Whitehall, and Dr. H. A. Jegi, Galesville, reported on the annual meeting of the State Medical Society of Wisconsin.

Waupaca

The members of the Waupaca County Medical Society met at the Community Hospital at New London on November 17 for a 6:30 dinner. Dr. Milton Trautmann, officer for the control of venereal diseases for the State Board of Health, was guest speaker, his subject being the diagnosis and treatment of syphilis. A report on the annual meeting of the State Medical Society of Wisconsin was given by Dr. A. M. Christofferson of Waupaca, delegate from Waupaca County.

West Allis Medical Society

Dr. G. H. Hoffmann and Dr. Thomas Willett discussed technical problems of modern medicine at the monthly meeting of the West Allis Medical Society held at the home of the Society's president, Dr. E. D. Wilkinson, on November 2. Dr. M. C. Malensek led a discussion on the psychology of handling patients.

Winnebago

Approximately forty members attended the monthly dinner meeting of the Winnebago County Medical Society which was held on October 21 at the Valley Inn, Neenah. A short business meeting was followed by an illustrated lecture on "Convalescence and Serum Therapy" by Dr. Maurice Hardgrove of Milwaukee.

First Councilor District

The first councilor district of the State Medical Society of Wisconsin and the eighth dental councilor district held a joint meeting during the afternoon and evening of November 18. Guest speakers on the afternoon program were Dr. Joseph E. Schaefer of the department of oral surgery of the Cook County Hospital, Chicago, and Dr. Edward H. Hatton of the department of pathology of Northwestern University Dental School. This was followed by general discussion and business meetings of the two groups. Following a dinner and musical entertainment at the Elks Club, Dr. M. Fernan-Nunez, professor of pathology at Marquette University, presented a travelogue. His subject was "Spanish Medicine and the Spanish Revolution."

Ninth Councilor District

The autumn meeting of the Ninth Councilor District Medical Society was held at Marshfield on the afternoon and evening of November 3. The program, which began at three o'clock, follows:

"Chest Injuries"—Dr. Leland Pomainville, Wisconsin Rapids

"Recent Advances in the Therapy of Arterial Hypertension"—Dr. C. F. Broderick, Nekoosa

"Clinical Cases of Nephritis"—Dr. K. H. Doege and Dr. R. S. Baldwin, Marshfield

"The Surgical Treatment of Hypertension"—Dr. W. McK. Craig, Mayo Clinic

"Neurosurgical Aspects of Head Injuries"—Dr. W. McK. Craig, Mayo Clinic

"The Importance of Pathological Examinations"—Dr. Carl M. Apfelbach, Rush Medical College

Milwaukee Neuro-Physchiatric Society

When the Milwaukee Neuro-Psychiatric Society met at the University Club on November 24, dinner at 6:30 was followed by the presentation of two papers. Dr. Harry Tabachnick spoke on "Myasthenia Gravis: Consideration of Recent Advances and Influence of Pregnancy," and Dr. Wallace Marshall on "Psychiatric Evaluation of Afferent Stimuli and Cortical Potentials."

Milwaukee Oto-Opthalmic Society

The Milwaukee Oto-Ophthalmic Society held a dinner meeting at the University Club on November 9. After the discussion of clinical cases Dr. H. F. Haessler presented a paper. His subject was "Ocular Tuberculosis."

Milwaukee Society of Clinical Surgery

The scientific program for the meeting of the Milwaukee Society of Clinical Surgery on November 23 at the University Club included addresses by Dr. Edmund W. Schacht of Racine and Dr. Charles Huggins, associate professor of surgery, University of Chicago. Doctor Schacht's subject was "Carcinoma of the Scrotum," and Doctor Huggins' was "What is the Function of the Arterial Supply of the Liver?"

THE WOMAN'S AUXILIARY

(ORGANIZED 1929)

OFFICERS

Mrs. Oscar W. Friske, Beloit, President
Mrs. Frank E. Brinckerhoff, Beloit, Secretary
Mrs. Robert E. Fitzgerald, Wauwatosa, President-elect
Mrs. Arthur J. McCarey, Green Bay, Treasurer
Mrs. Harold E. Marsh, Madison, Parliamentarian

DIRECTORS

Mrs. Rock Sleyster, Wauwatosa
Mrs. F. Gregory Connell, Oshkosh
Mrs. Cornelius A. Harper, Madison

COMMITTEE CHAIRMEN

Archives and History—
Mrs. Edward C. Pfeifer, Racine
Hygeia—
Mrs. Earle E. Kidder, Stevens Point
Nominations—
Mrs. Fred Nause, Jr., Sheboygan
Organization—
Mrs. Eben J. Carey, Wauwatosa
Press and Publicity—
Mrs. George H. Ewell, Madison
Program—
Mrs. William T. Clark, Janesville
Public Relations—
Mrs. Raymond B. Dryer, Poynette

Hygeia*

By MRS. E. E. KIDDER

Stevens Point

WE SINCERELY hope that each of the county auxiliaries has already laid the foundation for its Hygeia campaign. During the month of December we should do most of our work, since special rates are offered to physicians. Then, too, we are eligible for the cash prizes offered by Hygeia to the county auxiliaries securing the largest number of subscription credits during the months of December and January. Your county chairman or president will explain this in detail to you.

It is our earnest desire that each member put forth a special effort and help keep up the record attained during the past few years. Last year we were at the top of the list. With your cooperation we cannot fail to keep up our fine reputation as a state auxiliary that is a leader in this worthwhile educational project.

Be sure to contact your county and city superintendents of schools and encourage them to include Hygeia on their list of periodicals. By placing an authentic health magazine before the eyes of our school children, we are stimulating their interest in a subject which is of definite value to them. They will learn when to disregard advice given out by quacks, cultists, and untrained people not qualified to dispense medical information.

And last, but not least, familiarize yourselves with the publication that you are endeavoring to place before the public.

* Mrs. George H. Ewell, Madison, chairman of press and publicity of the Woman's Auxiliary to the State Medical Society of Wisconsin, has arranged for a series of articles from chairmen of various committees. This is the second article in the series.

Brown—Kewaunee—Door

Mrs. Oscar W. Friske, Beloit, president of the Woman's Auxiliary to the State Medical Society of Wisconsin, and Mrs. Eben J. Carey, president of the Woman's Auxiliary to the Medical Society of Milwaukee County, were guest speakers at the monthly meeting of the auxiliary to the Brown–Kewaunee–Door Medical Society at the home of Mrs. W. A. Killins on October 24.

Mrs. Friske outlined the work that has been planned for the coming year and announced that a new project, the prevention of highway accidents, had been adopted to reduce the number of highway accidents. The talk of Mrs. Carey, which followed the short business meeting, centered on the growth of the auxiliary since its organization in November, 1933.

Tea was served to twenty-eight members with Mrs. E. G. Nadeau, social chairman, in charge, assisted by Mrs. R. M. Carter and Mrs. W. E. Leaper. The tables were decorated with yellow tapers and a centerpiece of fruit. Mrs. George W. Krahn, Oconto Falls, was an out-of-town guest.

Columbia—Marquette—Adams

Mrs. J. W. MacGregor, president, presided at the meeting of the Woman's Auxiliary to the Columbia–Marquette–Adams County Medical Society on Tuesday, November 9, at the Friendship Hospital at Adams. Preceding the business meeting, the members and their husbands had dinner at the hospital.

The chairmen of the Hygeia, Public Relations, and Membership Committees gave their reports, the chairman of the Membership Committee reporting two new members. Plans were made for a luncheon to be held on December 4 at the Woman's Civic League, Portage, the purpose being to assist in the organization of an auxiliary in Sauk County.

Dane

Mrs. George Stebbins entertained the Woman's Auxiliary to the Dane County Medical Society at a one o'clock luncheon on Wednesday, November 10. The assisting hostesses were Mrs. J. S. Supernaw, Mrs. H. M. Carter, and Mrs. H. L. Green.

Professor F. J. Weckel of the Wisconsin Research Foundation spoke on milk and its nutritive properties. He illustrated his talk with lantern slides.

Dodge

The Woman's Auxiliary to the Dodge County Medical Society met at the home of Mrs. A. E. Bachhuber, Sr., in Mayville on October 28 to elect officers for the ensuing year. Those who will serve during the coming year are Mrs. E. P. Webb, president; Mrs. A. A. Hoyer, president-elect; Mrs. George Hoyer, secretary; and Mrs. William Bargholtz, treasurer. Other business of the evening included a report given by Mrs. A. M. Rosenheimer on the annual meeting of the Woman's Auxiliary to the State Medical Society of Wisconsin.

Bridge was played and the prizes were awarded to Mrs. R. R. Roberts and Mrs. C. M. O'Hora.

Fond du Lac

The Woman's Auxiliary to the Fond du Lac County Medical Society held its first meeting of the year on Thursday, October 21, at the home of Mrs. R. G. Mills, president. A buffet dinner was served at 6:30 p. m. to thirty-five members.

There was a brief business session with reports of the various committees. Mrs. O. M. Layton, president-elect, gave a report on the annual meeting.

Kenosha

Dr. Margaret Pirsch of Kenosha gave a talk on mental hygiene at the first meeting of the fall season of the Woman's Auxiliary to the Kenosha County Medical Society. The meeting was held at the Woman's Club at Kenosha on November 2.

Milwaukee

A beautiful "Chrysanthemum Luncheon," held at the Schroeder Hotel on Friday, November 12, by the Woman's Auxiliary to the Medical Society of Milwaukee County, was attended by approximately 160 members and guests, with Mesdames Ralph Bergen, William Ryan and Fred Kretlow, social chairmen, in charge of the occasion.

Mrs. Benjamin Lieberman, co-chairman of music, presented Mrs. Florence Bettray Kelly, one of Milwaukee County's talented auxiliary members, who played a number of selections on the piano, three of them of her own composition.

Mrs. Charles Fidler, program chairman, introduced the speaker of the day, Dr. Paul Nicholas Leech, secretary, Council on Pharmacy and Chemistry, American Medical Association, who gave a most instructive talk on "Prescribing for the Public–Professional and Non-Professional." Doctor Leech stressed the need for a good food and drug act, and urged women's organizations to help make the Congress of the United States conscious of the great inadequacy of the present law. He told of the recent tragic results following the use of Elixir Sulfanilamide–Massengill, the importance of the investigation made, and the aid given by the American Medical Association.

Mrs. Eben J. Carey, president, announced that the Membership Committee had secured four new members whom the auxiliary was happy to welcome. They are Mesdames W. H. Bickel, Cornelius F. Dunn, Julius V. Heil, Raymond P. Wiesen.

Further, it being an open meeting with guests as well as members present, Mrs. Carey again stated some of the purposes of the Woman's Auxiliary, as follows:

(a) To aid the State Medical Society of Wisconsin.

(b) To assist in placing speakers on programs of lay organizations through the speakers' bureau of the county medical society.

Members of the Nominating Committee, appointed to report at the annual meeting of the auxiliary, were announced as follows: Mesdames H. O. Zurheide, chairman, R. G. Washburn, F. C. Heidner, Charles Fidler, James C. Sargent, Merle Q. Howard, Rock Sleyster.

A letter from Mr. Theodore Wiprud, executive secretary, Medical Society of Milwaukee County was read, inviting the Woman's Auxiliary to join with the county medical society in its annual dinner, to be held Thursday evening, December 9, at 7 o'clock. On motion, seconded and carried, it was decided that the Woman's Auxiliary to the Medical Society of Milwaukee County hold its annual business meeting Thursday afternoon, December 9, at 5 o'clock, and accept the invitation to join the county medical society in its annual dinner and program.

As Dr. J. H. J. Upham, president of the American Medical Association, had already accepted the invitation extended by the Woman's Auxiliary to the Medical Society of Milwaukee County to speak at its annual meeting, Doctor Upham will be the speaker of the evening following the annual dinner to be held jointly by the Medical Society of Milwaukee County and the Woman's Auxiliary. Dr. Clarence Dykstra, president of the University of Wisconsin, will extend greetings.

Outagamie

Sixteen members of the Woman's Auxiliary to the Outagamie County Medical Society attended the

society's first meeting of the fall on October 28 at the Conway Hotel. At the business session which followed a 6:30 dinner, reports of the annual meeting in Milwaukee were given by Mrs. Carl Neidhold, Appleton, and Mrs. William Towne, Hortonville. Plans for the year's work were discussed, and two committees were appointed. Named to the nominating committee were Mrs. Charles Reineck, chairman, Mrs. Robert McCarty, and Mrs. E. L. Bolton, and to the committee for revising the constitution, Mrs. A. E. Rector, Mrs. William Towne, and Mrs. Stephan Konz.

Portage

The regular meeting of the Woman's Auxiliary to the Portage County Medical Society was held at the home of Mrs. E. P. Crosby, Stevens Point, on Monday, November 1, at 7 o'clock. Eight members were present. After the serving of coffee and dessert, the following business was transacted.

Mrs. E. E. Kidder, president, and Mrs. A. G. Dunn, president-elect, reported on the board meeting held in Milwaukee on October 27. It was announced that Dr. W. D. Stovall of Madison would deliver an address on cancer at the open meeting on November 8, and that the auxiliary had extended an invitation to members of the Stevens Point Woman's Club, the Progress Club, the Fortnightly Study Club, the Parent–Teachers Council, and the dentists' wives of Stevens Point, Marshfield and Wisconsin Rapids. It was decided to have musical selections by local talent at this meeting.

An article on cancer in the current issue of Hygeia was read by Mrs. D. D. Frawley. The following nominating committee was appointed: Mrs. E. P. Crosby, Mrs. D. S. Rice, and Mrs. D. D. Frawley.

Racine

The Woman's Auxiliary to the Racine County Medical Society met for luncheon on November 9 at the Hotel Racine. The program included a book review by Miss Margaret Rohan, and a vocal solo by Miss Marion Helber, accompanied by Miss Alice Magee.

The executive board of the auxiliary met on October 22 at the home of Mrs. C. E. Constantine, Racine, to discuss plans for the coming year. Literature based on health formed the theme of the discussion.

Rock

The October meeting of the Woman's Auxiliary to the Rock County Medical Society was a social one held at the home of Mrs. Frank Van Kirk. Prizes in bridge were won by Mrs. F. Sutherland, Mrs. T. F. Shinnick, and Mrs. M. E. Ross, with Mrs. George John winning the lucky number prize.

Mrs. W. W. Crockett, Beloit, president, conducted a short business session. The state president, Mrs. Oscar Friske, also of Beloit, was present.

Sheboygan

At the October luncheon meeting of the Woman's Auxiliary to the Sheboygan County Medical Society it was decided that future meetings would be held as teas in the homes of members in an effort to create better attendance. A report of the annual meeting in Milwaukee was presented.

The members were delightfully entertained at a tea at the home of Mrs. Walter Ford on North Point Drive on November 3. The assisting hostesses were Mrs. Paul Mason and Mrs. John Boersma. Miss Mary O'Brien gave a reading. A report of the recent board meeting in Milwaukee, which had been prepared by Mrs. Fred Nause, was read by Mrs. Walter Ford.

News Items and Personals

A staff meeting of St. Joseph's Hospital at Hartford was held on Tuesday evening, November 2, at which time officers were elected. Dr. F. W. Sachse is the president, Dr. F. W. Lehmann the vice president, and Dr. M. E. Monroe the secretary-treasurer. Meetings are held the first Tuesday of each month.

—△—

Dr. S. G. Higgins, associate professor of medicine at Marquette University, left November 20 on a five months' trip that will take him through Egypt, India, Japan and Hawaii. Doctor Higgins is accompanied by Dr. Walter Stevenson of Quincy, Illinois, and the two doctors will make a study of diseases of the eye on their trip.

—△—

With lantern slides and colored movies, Dr. Arnold Jackson, Madison, assisted by Dr. Reginald Jackson, Jr., presented the problem of the prevention of goiter to an audience of about 200 at the senior high school at Fort Atkinson on November 16.

—△—

Election of officers was held at the annual dinner meeting of the staff of St. Mary's Hosiptal, Madison, on October 28, at which time Dr. V. B. Hyslop was elected president; Dr. W. A. Werrell, vice president; and Dr. I. G. Ellis, secretary and treasurer. During the next year meetings of the members of the staff will be held on the third Tuesday of each month.

—△—

Dr. S. J. Seeger, Milwaukee, was appointed chairman of the newly created Council on Industrial Health of the American Medical Association at a meeting of the board of trustees in Chicago recently.

This council has been created to correlate and centralize research and investigation in industrial diseases. The next meeting will be held in Chicago on December 10.

—△—

Dr. and Mrs. W. F. Fortner of Bloomer have moved to Corvallis, Oregon.

—△—

Dr. F. O. Kuehl of Green Bay recently took a postgraduate course in allergy in Chicago. He returned to his office November 15.

—△—

Dr. F. R. Janney, Milwaukee, was the guest day speaker at the Friendly Folks Club of the Waukesha Y.W.C.A. on Thursday afternoon, November 4. Doctor Janney spoke on children's diseases.

—△—

Dr. L. H. Kingsbury of Statesan has accepted a position as head of a state sanitarium in Orlando, Florida.

—△—

Dr. Edward Jackson, Milwaukee, was elected president of the Milwaukee School Physician's Association at a luncheon at the Ambassador Hotel on Wednesday, October 20. Other officers elected were Dr. J. W. Hansen, vice president, and Dr. J. A. Jenner, secretary-treasurer.

—△—

A meeting of the staff of the Wisconsin General Hospital was held at Madison on October 19, at which time Dr. F. D. Geist, assistant professor of anatomy in the medical school, discussed "The Hypothalamus; Some Anatomical and Physiological Considerations." The meeting was held at the Service Memorial Institute.

—△—

Dr. T. L. Hartridge, former Oconomowoc physician, has opened an office at Horicon.

—△—

At a meeting of the Lions Club on November 9, Dr. W. G. Sexton, Marshfield, addressed the members on the subject "Believe It or Nots in Medicine."

—△—

Dr. W. S. Middleton, dean of the University of Wisconsin School of Medicine, was elected vice president of the Association of American Medical Colleges at the recent meeting in San Francisco.

—△—

Dr. C. N. von Neupert has been selected as county physician and Dr. A. G. Dunn as eye, ear, nose and throat specialist for county patients by the Portage board of supervisors. Both doctors are located at Stevens Point.

—△—

Doctors and nurses from Richland Center and surrounding communities gathered at Richland Center on October 21 to honor Dr. A. D. Campbell at a testimonial dinner. Doctor Campbell has been a practicing in Richland Center since 1899. About seventy guests were present at the dinner.

The members of the Watertown Rotary Club heard an address on November 1 by Dr. Milton Trautmann of the State Board of Health on the subject of the control of syphilis. He spoke on the same subject to members of the Beloit Club on October 26.

—△—

At a recent meeting three Wisconsin physicians were honored by the Wisconsin Anti-Tuberculosis Association for their outstanding contributions in the field of tuberculosis: Dr. Gustave Windesheim, director of the Kenosha health department; Dr. Gilbert Seaman, superintendent of the Winnebago State Hospital, and Dr. M. S. Hosmer, Ashland, trustee of the Pureair Sanitarium at Bayfield and a director of the association.

—△—

The annual clinical congress of the American College of Surgeons will be held in New York, October 17–21, 1938.

—△—

Dr. M. G. Peterman, professor and director of the department of pediatrics at the Marquette University School of Medicine, spoke at three meetings of the Medical Association of Montana at Billings, Anaconda, and Havre, Montana, November 8 to 13. His subjects were "Present Status of Vitamin Deficiencies in Childhood," "Routine Immunizations by the Family Physician," and "Convulsions in Infancy and Childhood." Doctor Peterman also gave a public address in Anaconda on November 10 on "What Your Physicians Will Do for You."

—△—

Application blanks are now available for space in the Scientific Exhibit at the San Francisco Session of the American Medical Association, June 13–17, 1938. The Committee on Scientific Exhibit requires that all applicants fill out the regular forms.

Application blanks may be obtained from the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Ill.

—△—

Dr. W. G. Sexton, Marshfield, was elected president of the north central branch of the American Urological Society at its fourteenth annual convention at Marshfield on October 23. Doctors W. F. Lorenz, W. S. Middleton, Ira Sisk, George Ewell, and J. B. Wear, all of Madison, took part in the program.

—△—

Dr. S. Plahner, Milwaukee, addressed the members of the Epworth League at the First Methodist Church in Milwaukee on Sunday evening, October 31. His subject was "Why We Misbehave." He was also a guest speaker before the Kiwanis Club of North Milwaukee on Tuesday, November 9. The title of his talk was "Juvenile Delinquency."

—△—

An orthopedic field clinic was held at the Stephen Bull School, Racine, on December 4, under the auspices of the Crippled Children Division and the Racine County Medical Society. Dr. R. E. Burns and Dr. H. W. Wirka of Madison conducted the ex-

aminations, and the clinic served not only the crippled children of Racine County but also children from surrounding counties.

—△—

Dr. W. S. Miller, honorary professor of anatomy at the University of Wisconsin, was guest speaker at the Medical School Convocation held Thursday afternoon, October 21, at Service Memorial Institute. Dr. Miller discussed "Some Vital Points in the Architecture of the Lung." The talk was illustrated with motion pictures.

—△—

Following a four-day convention in Chicago, the Congress of Anaesthetists held a two-day session in Madison in October as a tribute to Dr. R. M. Waters, professor of anesthetics at the University of Wisconsin Medical School. Among the hundred members of the congress who were in attendance at the meeting were physicians from Mexico and Canada as well as from all parts of the United States.

—△—

Dr. W. E. Leaper has returned to Green Bay after attending the tenth annual fortnight postgraduate course in neurology conducted by the Academy of Medicine at New York City.

MARRIAGES

Dr. Lewis Grant Jacobs, Jr., Madison, and Miss Catherine Feeney, Madison, on October 30.

Dr. Alvin O. Hendrickson, Fairchild, and Miss Maxine Hartwig, Madison, on October 30.

Dr. Clayton L. Ingwell, Deerfield, and Miss Fern Frances Nieland, Madison, on November 11.

Dr. Alexander W. Adamski, Racine, and Miss Katherine Margaret Poborsky, Milwaukee, on June 26, 1937.

DEATHS

Dr. George P. Barth, Milwaukee, head of the department of school hygiene and a member of the Milwaukee health department staff, died at his home on Saturday, October 23, of a heart attack. He was sixty-four years of age.

Doctor Barth was born in Milwaukee. He was graduated from the University of Wisconsin in 1895 and then attended the University of Pennsylvania, receiving his medical degree from that University in 1898. He was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association.

Dr. William V. Bryant, Madison, died of heart disease in his Lake Kegonsa home on Monday, November 1. He was the son of General E. E. Bryant, Madison pioneer who served as adjutant general of Wisconsin and as dean of the University of Wisconsin School of Law. Doctor Bryant was sixty-one years of age at the time of his death and was not engaged in active practice. He was educated in the Madison schools, the University of Wisconsin, and Rush Medical College. He is survived by two sons.

Dr. Arthur F. Lyon-Campbell, retired physician of Milwaukee, died on October 27 in Racine at the home of his son. He retired fifteen years ago after many years of medical practice in Florence, Wisconsin, and Ramsay, Michigan. Doctor Lyon-Campbell was born in 1870 and was graduated from Milwaukee Medical College in 1898. He is survived by his widow and two sons.

Dr. Samuel DeNosaquo, Milwaukee, died of a heart attack on October 28 at the age of fifty-eight years. He came to this country from Russia when he was a boy and was graduated from Marquette University School of Medicine in 1913. Doctor DeNosaquo was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association.

Dr. Louis J. Pritzker, widely known physician and surgeon and a resident of Kenosha since May, 1936, died in a Kenosha hospital on Friday, November 5, after an illness of about two weeks. Doctor Pritzker was born in Kiev, Russia, on December 29, 1867. Coming to America in 1882, he went directly to Chicago. There he was graduated from Northwestern University Medical School in 1891 and practiced medicine until 1936, when he retired. He was an assistant professor at Northwestern University and a member of the medical staffs of the Grant Hospital and the Norwegian-American Hospital of Chicago. During the World War he was a captain in the Medical Corps of the United States Army, and was assigned to duty as a surgeon at Fort Snelling, Minnesota. He was a member of the Masonic lodge, the American Legion, and the American Medical Association. Doctor Pritzker is survived by his widow, one son and one daughter.

CORRESPONDENCE

A CORRECTION IS MADE

November 22, 1937.

Editor
The Wisconsin Medical Journal
Madison, Wisconsin

Dear Sir: May I direct the attention of the readers of the Journal to an error in my article, "The Blood Sedimentation Rate," which appeared in the Wisconsin Medical Journal, Volume 36, page 815, October, 1937.

On page 816, first paragraph, the sentence reading: "They are all based upon the prompt mixture of four parts of 2 to 5 per cent sodium citrate solution with one part of freshly drawn venous blood," should read: "They are all based upon the prompt mixture of *one* part of 2 to 5 per cent sodium citrate solution with *four* parts of freshly drawn venous blood."

Yours truly,

M. G. Peterman, M.D.

Principles and Proposals of the Committee of Physicians

BECAUSE Wisconsin physicians have been circularized widely to sign various statements of principles and proposals, the Journal is reprinting herewith an official statement of the board of trustees of the American Medical Association, released on Sunday, November 21.

"Following the publication of the report of the American Foundation Studies in Government, a small group of physicians, assembled in New York, developed certain principles and proposals which have since been circulated by a self-appointed Committee of Physicians among the medical profession of the United States, with a view to obtaining signatures in their support. During a period of approximately six months, some 430 medical men have apparently permitted the use of their names. Early in November the self-appointed group of physicians released to the press for Sunday, November 7, a statement of principles and proposals to which the names of the 430 signers were affixed. The newspapers generally heralded this action as a revolt against the American Medical Association, in a great majority of the cases indicating that there was a revolt in behalf of "state medicine." The publication of this manifesto and the attached signatures has been heralded with glee by many of those who have been opposing the American Medical Association in behalf of cooperative practice, sickness insurance, and various fundamental changes in the nature of the practice of medicine. Within the last week another series of proposals has come from another self-appointed group requesting signatures of physicians. This series of proposals includes the suggestion for enabling legislation for sickness insurance.

"The American Medical Association is an organization of physicians along strictly democratic lines. Representatives of county medical societies send delegates to state medical societies and these, in turn, send their delegates to the House of Delegates of the American Medical Association. It is possible for any physician, through his delegate, to obtain consideration of any proposal which he may wish to bring to the attention of the House of Delegates. At the Atlantic City session the delegates from New York State presented these principles and proposals, slightly modified, as an action of the House of Delegates of the New York State Medical Society. They were carried before a reference committee and, in several sessions of that reference committee, considerable numbers of physicians presented arguments for and against their adoption. The House of Delegates, however, after thorough consideration of the report of the reference committee, and with full cognizance of the method of development of these principles and proposals, and of the considerations which were involved in their passage by the House of Delegates of the New York State Medical Society, did not accept them. The House of Delegates did, however, point out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all those unable to pay either in whole or in part.

"Why, then, any necessity for the circulation of petitions presenting proposals for fundamental changes in the nature of development, distribution and payment for medical service? Is there a well designed plan to impress the executive and legislative branches of our government with the view that the American medical profession is disorganized, distrustful of its leaders, undemocratic in its action and opposed to the best interests of the people? Who may profit from such evidence of disorganization? Is there any evidence that the self-appointed Committee of Physicians and the 430 physicians who have affixed their names to these principles and proposals are any better able to represent the opinion of the American medical profession than the democratically chosen House of Delegates of the American Medical Association — one of the most truly representative bodies existing in any type of organized activity in this country today?

"The House of Delegates has given its mandate to the Board of Trustees, to the officers and to the employes of the Association. That mandate opposes the principles and proposals emanating from the Committee of Physicians, and equally the new proposals. If the House of Delegates sees fit to depart from the principles now established, it will be the duty of the Board of Trustees, the officers and the employees of the American Medical Association to promote such new principles as the House of Delegates may establish. Until, however, the regularly chosen representatives of the 106,000 physicians who constitute the membership of the American Medical Association (now the largest membership in its history) determine, after due consideration, that some fundamental change or revolution in the nature of development, distribution and payment for medical service in the United States is necessary, physicians will do well to abide by the principles which the House of Delegates has established. They will at the same time deprecate any attempts inclined to lead the executive and legislative branches of our government, as well as the people of the United States, into the belief that the American medical profession is disorganized.

"Members of the medical profession, locally and in the various states, are ready and willing to consider, with other agencies, ways and means of meeting the problems of providing medical service and diagnostic laboratory facilities for all requiring such

services and not able to meet the full cost thereof. The American Medical Association has reaffirmed its willingness on receipt of direct request to cooperate with any governmental or other qualified agency and to make available the information, observations and results of investigation, together with any facilities of the Association. Thus far, no call has come from any governmental or other qualified agency, for the cooperation of the American Medical Association in studying the need of all or of any groups of the people for medical service, to determine to what extent any considerable proportion of our public are actually suffering from lack of medical care. The offer still stands as evidence of the willingness of the American Medical Association to aid in finding a solution to any or all of the problems in the field of medical care that now prevail."

Proceedings; House of Delegates, State Medical Society of Wisconsin, 1937

TUESDAY AFTERNOON SESSION

September 14, 1937

The first session of the House of Delegates, Ninety-Sixth Anniversary Meeting of the State Medical Society of Wisconsin, was called to order at 4:00 p.m. by the speaker, Dr. A. E. Rector, Appleton, Wisconsin, in the Hotel Schroeder, Milwaukee.

Speaker Rector: The 1937 House of Delegates of the State Medical Society of Wisconsin will now come to order.

May we remind you that this meeting represents the Ninety-Sixth Anniversary of the State Medical Society of Wisconsin and organized medicine within the State. At first glance, this will appear to cover a long period of time.

A great advancement in medicine has come to us in that period, and great things have been accomplished in the medical field during that time in our State and Nation. However, while the State Medical Society of Wisconsin has been active almost 100 years, medical organization has been in progress over 4,000 years, and without that background and trail down through the centuries we could not occupy the position we do today. While we are less than a century in years, we are one of the oldest vocational organizations in the State that has advanced continuously since its birth. We represent, without question, the vocation that carries the greatest responsibility of any to the people of this State.

While society and business have been emerging from chaos, a new group has reared its head, demanding the right to delve into the lives of our patients and ourselves, demanding the right to direct our care of patients' ills and the right to make their affairs a matter of public record. And for what reason? Have we failed in our duty? No. The answer is: Members of this group want to build for themselves a place in the sun regardless of the cost to our patients and our profession.

May I inquire, during this chaos, who served the people in distress, largely without pay? Members of this group who appeared on every public payroll, or the physician, by his energy and unselfish sacrifice?

Do you deem it wise to turn over the problems of medical care, of public health, and the future advancement of medicine to the guidance of a group of people gathered from all walks of life, without experience, background, or training in this particular line, and trust to their judgment the people's welfare?

These are questions that must be answered, at least in part, by this House of Delegates. At no time in medical history have more important problems been presented to a legislative group than face you today. You are the elected representatives of the component societies of the State Medical Society of Wisconsin, and on you falls the responsibility of representing your Society at this time in the deliberations that will come before us.

You have accepted a grave trust, and I feel assured that every member will join in the procedures of this House to the best of his ability and not shirk any duties that may come to him at this time, giving of his time and energy as well as his best advice.

Your duties are legislative. For your Society, you will review old and propose new legislation and decide on future policies. You will elect officers and advise them to the best of your ability as to the desires of your associates at home. You will suggest the needs of your fellow practitioners and your communities. You will study matters pertaining to public welfare. All of this will be helpful to your executive officers in carrying on the year's work as you plan it.

Time is limited for this body's work, and we desire free and prompt discussion on all matters. Therefore, we hope that all delegates and alternates will enter into the discussions promptly, in order to present the picture as clearly as possible, and still facilitate our progress.

It is desirable that the delegate and alternate be seated in the same vicinity and that in the event of either leaving the hall he advise his associate, so that your society's voice and vote may not be lost. In order to gain time for the broadest general opinion, we will limit the speaker to five minutes, and, by consent of the House only, the time will be extended for important matters.

Any member of the Society, not a delegate, may be heard upon request to the speaker.

I wish at this time to anounce the appointment of Reference Committees.

Committee on Credentials
W. H. Neumann, Sheboygan, Chairman
Walter Mauthe, Whitewater
K. H. Doege, Marshfield

Reports of Officers and Standing Committees
J. C. Baird, Eau Claire
C. H. Andrew, Platteville
William Ryan, Milwaukee
E. E. Kidder, Stevens Point
W. J. Allen, Beloit
R. O. Grigsby, Ashland

Committee on Resolutions
D. J. Twohig, Fond du Lac, Chairman
H. M. Caldwell, Columbus
N. P. Anderson, La Crosse
R. P. Sproule, Milwaukee
W. S. Bump, Rhinelander

Any interested delegate or alternate may be heard at the meetings of these committees.

Credentials Committee Report

The chairman of the Committee on Credentials reported the registration of forty-eight members of the House and seven councilors. He moved that the attendance record compiled at the registration desk constitute the roll of the session. The motion was seconded by Dr. L. W. Peterson of Sun Prairie and carried.

The chairman of the committee reported further the committee's recommendation that the following be seated: Dr. R. M. Kurten, president of the Racine County Medical Society, and Dr. R. O. Grigsby of Ashland, representing the Ashland–Bayfield–Iron County Medical Society. The motion was seconded and carried.

It was moved by Dr. F. D. Murphy of Milwaukee and seconded by Dr. G. W. Neilson, Milwaukee, that the House meet according to the schedule set forth by the secretary. Carried.

The speaker presented to the House the new chairman of the council, Dr. Stephen E. Gavin of Fond du Lac.

It was moved by Dr. H. P. Bowen, Watertown, and seconded by Dr. A. E. McMahon, Glenwood City, that the minutes of the 1936 session as printed be approved. Carried.

Report of Council

As chairman of the Council, Dr. S. E. Gavin made the following statement:

On account of the various resolutions introduced in the past year or two, the Council, after long discussion on the subject matter of a resolution from the Milwaukee County Medical Society, recommends adoption of the following motion:

"The Speaker of the House of Delegates is hereby authorized to appoint from the delegates a committee of five to study reconstruction of the Constitution and By-Laws with reference to representation and election of councilors, that such committee report to the component county societies, through the secretary of the State Society, not less than ninety days prior to the 1938 annual meeting, with recommendations and proposed amendments, if any, so as to permit action thereon at the 1938 session of the House of Delegates."

The motion was seconded by Dr. L. W. Hipke of Milwaukee and carried.

Report of the Secretary

The secretary has made such a voluminous report this year that he wishes at this time to supplement only the figures on membership. A year ago, the membership was 2,195. Today it is 2,257. In addition, there are thirty-two applications for membership pending and seven additional memberships pending wherein the member has elected to pay his dues in installments; 114 are delinquent. It appears that when we reach the date of December 31, we will be close to a record membership total of 2,400.

TREASURER'S REPORT

State Medical Society of Wisconsin
as of September 10, 1937

	General Fund	Medical Defense Fund
Balance January 1, 1937	$ 622.02	$ 2,164.53
Receipts:		
Membership dues	34,008.21	
Interest on investments	535.30	
Exhibit space—annual meeting	1,982.50	
Bonds matured — Milwaukee School	999.65	
Bonds matured—Pacific Tel. & Tel. Co.		1,000.00
Hall of Health	3,420.00	
Insurance Refund	4.38	
Northern States Power Co. Bonds—called	4,000.00	
Profit on called Northern States Pr. Bonds	88.96	
Refund — Democrat Printing Company	35.88	
Refund—Rentschler Floral Co.	7.90	
Refund on insured package	1.10	
Women's Field Army of Wisconsin	582.20	
Wisconsin Hospital Association	3.95	
Total Receipts	$45,670.03	$ 3,434.00
Grand Total	$46,292.05	$ 6,598.53
Disbursements:		
Expenses, sundry	$34,116.05	
Expenses, Hall of Health	945.30	
Bonds purchased	4,000.00	1,053.07
Fees, Ralph M. Hoyt, attorney		2,063.67
Fees, W. E. Wagener		50.00
Total Disbursements	$39,061.35	$ 3,166.74
Cash on deposit as of Sept. 10, 1937	7,230.70	2,431.79

Summary of Funds

General Fund:

Bank balance Sept. 10, 1937	$ 7,230.70*
Bonds as per attached list	20,000.00
Total	$27,230.70

Medical Defense Fund:

Bank balance Sept. 10, 1937	$ 2,431.79
Bonds as per attached list	11,000.00
Total	$13,431.79

No bonds purchased for the Society account were in default at any time as to principal or interest.

* It is anticipated that on Dec. 31, however, there will be no general fund balance and the surplus account will have been reduced to between $12,000–$15,000.

State Medical Society of Wisconsin Investment Bonds

	Maturity	Rate Per Cent	Par Value	*Market Value
General Fund:				
New York State Elec. & Gas Corp.	3—1—80	4½	$ 1,000.00	$ 990.00
Canadian Nat'l. Ry. Co.	10—1—69	5	2,000.00	2,320.00
Milwaukee Gas Light Co.	3—1—67	4½	2,000.00	2,015.00
T.M.E.R.&L. Co.	6—1—61	5	2,000.00	2,035.00
Dominion of Canada	1—15—61/56	3¼	2,000.00	1,999.00
Dominion of Canada	8—15—45	2½	2,000.00	1,999.00
Wis. Public Service Corp.	6—1—61	4	3,000.00	3,120.00
Wis. Power & Light Co.	6—1—66	4	1,000.00	955.00
Pacific Tel. & Tel. Co.	12—1—66	3¼	1,000.00	1,006.25
N.Y. Edison Co.	10—1—65	3¼	1,000.00	1,008.75
American Tel. & Tel.	10—1—61	3¼	1,000.00	993.75
Ohio Edison Co.	1—1—72	3¾	2,000.00	1,975.00
			$20,000.00	$20,416.75
Medical Defense Fund:				
Milwaukee County Sewer	3—18—44	4½	$ 1,000.00	$ 1,110.00
Pacific Tel. & Tel. Co.	12—1—66	3¼	1,000.00	1,006.25
Bell Telephone Co. of Canada	3—1—55	5	2,000.00	2,260.00
Commonwealth Edison Co.	7—1—57	4½	2,000.00	2,220.00
U.S. Treas. Bonds 1944-46	4—15—46	3¼	2,000.00	2,102.00
Southern California Edison Co.	5—1—60	3¾	2,000.00	2,060.00
Wisconsin Gas & Elec. Co.	4—1—66	3½	1,000.00	1,000.00
			$11,000.00	$11,758.25

* Market value of bonds as at September 10, 1937, quoted by the Securities Company of Milwaukee, Inc.

This makes our bonds worth at this time approximately $1,200 more than their par value. The treasurer is again pleased to report that some of these bonds have been carried prior to the Depression and through the Depression. At no time has any bond ever defaulted as to principal or interest. (Applause)

Report of the President

President Gavin: I have no formal report to present at this time. The state of the Society has been so well represented in the reports of the various committees, printed in the August number of the Journal, that there is very little to add. I wish to repeat a request that I made to the delegates last year,—that they do not consider their duties discharged with the closing of the last meeting of the House of Delegates. There is no better contact, no better way of carrying the message of the activities of this Society to the membership than through the delegate body. I sincerely hope that when you go back home you will not be satisfied merely to read the report that will be sent to you of the high lights of this meeting but that you will make an actual complete report, giving the membership of your various societies a picture of what the Society is attempting to do for its membership.

I wish to mention briefly some of the committees that have performed unusual work during the year. I have found this past year that the job of running this Medical Society is not an easy one. The credit is due not to the president but to the membership. Members, after all, do or do not carry out the policies laid down by this House of Delegates. All policies of the Society emanate from your group and are transmitted through the secretary's office. The secretary in an unusually capable manner correlates the activities and directs many of the actions of the committees insofar as meetings are concerned, but he does not suggest policy. I am not going to take up each of these committees, but I shall mention a few of them and perhaps comment to some extent upon the work they have done and in one or two instances suggest activity in the future. One of the most important of these committees is the Committee on Public Policy. While the members have not met frequently, when they did meet they performed a splendid service. Practically all of the legislative matters were discussed by this committee and on their guidance and suggestion was based much of the action of the officers of the Society.

The Committee on Coordination of Medical Services has to do with matters pertaining to the Wisconsin General Hospital. Members of the committee have had some satisfactory meetings and still request that if there is anything that comes up throughout the entire State that should be discussed and brought to the attention of the committee, members should submit complaints or information to one of the members of the committee or to the secretary.

The Committee on Mental Hygiene and Institutional Care has performed a remarkable piece of work. The report of last year will go down in history as a classic. Members of this committee are still maintaining activity, and I am certain they will

continue to make valuable contributions to this organization in years to come.

The Advisory Committee on the Care of Crippled Children, under the chairmanship of Dr. J. W. Powers, made possible the splendid course of postgraduate meetings throughout the entire State. There were thirteen meetings, contacting a large percentage of the membership.

The Committee on Health and Public Instruction has done a fine piece of work during the past year in promoting and advising as to methods of increasing the knowledge of the public as to prevention of disease. In connection with the duties of this committee, I want to suggest that they extend their duties and the scope of their activity and perhaps do something to include the profession in their instruction as to the prevention of disease. I have ascertained from various sources that much of the difficulty in promoting and following up the prevention program arises within the profession and is caused by members of the profession who do not cooperate. The profession is still insufficiently informed as far as preventive medicine is concerned. There is much to be done, and the profession is losing a remarkable opportunity in not availing itself of all possibilities in this field. I feel so strongly about this matter that I cannot urge too emphatically further education in some way, so that the profession as a whole will cooperate properly in the program of preventive medicine.

The Committee on Cancer, under the chairmanship of Dr. W. D. Stovall, as you know, has done a high service. There have been other committees, the Governor's Planning Council, for example, which have done splendid work in the control of syphilis. The Committee on Medical Economics, with Dr. A. E. McMahon as chairman, has a remarkable grasp of the economic situation in the State, and has worked hard, spent considerable time in travel and meetings, and accomplished much for the benefit of our membership.

There is also another committee I wish to mention particularly, since I do not believe the report in the Journal does justice to the tremendous amount of important work accomplished. This is the new Council on Scientific Work, which was appointed last year for the purpose of correlating all scientific activities. The chairman is Dr. W. S. Middleton. Other members are Dr. Eben J. Carey, Dr. H. A. Sincock, Dr. G. W. Krahn, and Dr. James Evans. That committee, under the leadership of Doctor Carey of Milwaukee produced the Hall of Health. If any of you have not seen it, you have missed one of the biggest things dealing with prevention of disease ever presented not only in this State but in this country. Doctor Evans of La Crosse took charge of the scientific program of this annual meeting, and I think anyone who has read the program will agree it gives promise of being the finest program that has ever been presented by this Society.

Members of this committee also have developed, largely through the leadership of Doctor Carey and Doctor Middleton, a comprehensive postgraduate program, available to county and district societies, which will furnish a complete postgraduate course on any subject you may desire. They are also to take over the duties of the Editorial Board. The idea is to have all scientific activities of this Society handled by this one committee, a committee that goes on with continuity of effort, each man appointed for five years, one man being added each year.

Another important event of the year was the first special session of the House of Delegates in the history of organized medicine in Wisconsin. I know it is well known to you, but I would just like to mention it again. You are all familiar with the reason for it. When all these bills pertaining to socialized medicine were introduced in the legislature, we realized there might be some difference of opinion throughout the State, opinions at variance with the ideas of the officers. We wanted to get a cross-section view of the entire membership, so a special meeting was called. You acted on all those bills. Your directions were followed in one of the most remarkable pieces of work, from a legislative standpoint, that I have ever seen.

We realize the splendid victory in the legislature, but regardless of that we know it is not the end of this attempt to foster socialized medicine in the State of Wisconsin. Members throughout the State realize this, and it is one question that has been difficult for me to answer. I have been asked many times: What are we going to do about it? Have we a program to suggest?

I would at least like to suggest at this time that some way be devised so we are able to find out still more about the facts throughout the State of Wisconsin. Are we furnishing adequate medical care, or are we not? If we are not, where are we failing? The problem varies, of course, in different parts of the State. There must be some way, however, of ascertaining the situation throughout the State so that when the question is again presented we will be prepared to say before the legislature that we are furnishing adequate medical care and that our system of medical care is ideal, or explain why and where it is not adequate and present a plan to make it adequate.

We cannot do this by running around in circles. There has to be some committee or body that can sift out the facts in the State and present them in a form that applies to the State as a whole, a committee that can go to the source of the propaganda now causing all this disturbance about socialized medicine.

The reason so much of this propaganda has been spread about is that the social agencies have not bothered themselves so much with the rank and file. They have gone to the top and to headquarters and put this insidious stuff there so the heads of these various organizations could spread the gospel throughout the membership. It is still in its infancy insofar as membership is concerned. Most of our problems are at the top and not the bottom.

I am sure if there were a proper body, a contact committee, or whatever you want to call it, made up of men who could first study the situation in the State and then go to the top before these organized heads and ask what their problem is, they would be able to refute much of this misinformation. All of this may add something to the expense of conducting the organization. You have had in your hands in the past ten days or two weeks a supplemental report of the secretary. I have asked Mr. Crownhart to give you some picture of what the Society is doing and what his office is doing, and to give you a budget. I wanted you to see what activities were being followed, and at what cost. I wanted you to have this information so that if anybody had any suggestion as to where the cost of any of these activities could be reduced he could tell us. If there are any activities that the House of Delegates feels should not be pursued, we want you to tell us. On the other hand, I cannot conceive of adding many activities under our present budget. If you have not read the secretary's report, I hope you will do so before the evening session.

I will say that as complete and extensive as is this report as to the activities of the Society, it does not tell half. He gave you this report in an extensive from and it is necessarily extensive to give you even the high lights of the activities in the secretary's office. Many, many of the activities have not even been mentioned in the report. Then with this picture of the expense in your hands, you are the determining body. If we are on a wild goose chase (I say we as one of your body, not as an officer) we want to stop it. If we are spending money for something that is unnecessary and useless, somebody in his wisdom should point it out.

Those are about the only remarks I have to make today. I would like, at this time, however, to compliment you, especially the members of the House of Delegates who were here last year, upon the selection of your incoming president. I think of all the jobs you have done in the past many years you did one of the best last year. While I know it is not necessary, still it is customary to bespeak for my splendid successor, James C. Sargent, the same fine loyalty and cooperation which you have given to me during the past year. I thank you.

Address of President-Elect

Dr. Sargent: Before going ahead with the brief outline which I wish to submit concerning certain suggestions for the year to come, I want to take advantage of this opportunity to express my genuine gratitude for the high honor you so graciously tendered in naming me to the presidency of this wonderful organization. No one could come up through the offices of this Society and not be profoundly moved by the remarkable loyalty and interest that it commands from its many members. Neither could one help being impressed by the smooth and unbroken continuity with which one administration blends into the next. With an executive staff organization, a marvel to all who have occasion to see it at work, and with a succession of delegates, councilors and officers sincerely dedicated to the job assigned them, it is little wonder indeed that ours has come to be a model of state organizations. I have not overdrawn the picture. Today, as we take over the reins of our Society we find it to be just that.

In the years recently passed, a great change has been in progress. More and more have the affairs of medicine and the care of the sick come under public notice. That is a healthy development, no doubt, but it places an inescapable duty upon our profession to be so alert and so united as to make impossible any radical and unwanted changes that might by accident spring from the hysteria of this new lay interest. It is in that service and under that responsibility that you and I have been summoned here together.

We would indeed be blind did we not recognize that there has grown up in the last few years a powerful group of propagandists who seek to transplant into our several States a foreign system of sickness care, the gist of which is to interpose the bureaucracy of government between physician and patient. I mention this only that all of us may recognize that such a group does exist and that nothing less than the total fulfilment of their objective is likely ever to satisfy them. Medicine, for reasons to it clearly valid, rejects such revolutionary proposals. In that rejection, however, it does not and must not take the position that future changes are not to occur and that, therefore, it shall remain deaf to all suggestions.

During recent years, a wealth of interesting ideas have been coming to us from groups affiliated with medicine as well as from within the profession itself. These suggestions have been largely concerned with the broad subject of the costs of service to the sick and with methods intended, if possible, to lighten the economic burden involved.

Considerable interest has come to be attached to the several suggested methods of applying the insurance principle to the payment of the larger of these sickness bills. I refer especially to the various schemes for hospital insurance and for health insurance. Indeed so heavy has the pressure come to be concerning some of these that I am beginning to wonder if we are not to be like the old maid who, vowing she would ne'er consent, consented.

The circumstances surrounding the recent special session of this House of Delegates still stand clear in the memory of us all. Every one, I am sure, recalls the surprisingly large show of hands that appeared at that time favoring our support of the Biemiller bill concerning group hospital insurance, despite the quite obvious and serious defects that it contained. That is but one of a number of recent experiences bringing the conviction that a commanding group within the profession desires that we give the subject interested and honest consideration.

The American Hospital Association has long been an ardent proponent of this new scheme of applying the principle of insurance to the costs of serious sickness. Indeed the Wisconsin unit of the American Hospital Association, at its regular annual meeting in Chicago last fall, insisted against the strongest sort of representations from our organization, that it enlist actively in the support of Mr. Biemiller's hospital insurance bill. It was only after it became evident that their organization was disintegrating in hopeless controversy over their disregard for the studied opinion of the profession of the State that they reluctantly withdrew. If we can believe our ears, it becomes increasingly evident that certain hospitals here in Wisconsin are even now preparing to go it alone in this new venture if we remain adamant in our contrary position regarding it.

It is for these several reasons, gentlemen, that I commend to your consideration the immediate appointment of a special committee dedicated to a thorough and sympathetic study of the whole field of hospital insurance. I am confident that, with the help and advice of my associates in the organization, I can find several of the leading minds in hospital management here in Wisconsin who would deem it a real privilege to serve actively with physicians from our own membership upon such a special committee. This mixed committee would be dedicated to the threefold task of determining (1) what need, if any, is to be served through hospital insurance here in our State; (2) what form such insurance should take to be of greatest possible benefit; and (3) how it should be managed and controlled in order to insure its perpetuation as an instrument utterly free from the bureaucratic control of government and limited solely to the supply of hospital care. I know of no more conservative, yet direct way for us to meet what has clearly come to be an open challenge to our organization. Through the work of such a picked group, I am convinced real truth will develop concerning the merits and dangers, as well, of this new and tempting proposal.

Paralleling the wide interest that presently prevails in the application of the insurance principle to sickness costs—indeed, perhaps, responsible in a measure for it—we are coming to be deluged with the wildest sort of claims challenging the adequacy of sickness care throughout our State. It seems to me that certain of these newly proposed schemes as well as the claimed inadequacies in sickness care for which they purport to be devised demand and deserve our most careful and honest over-all consideration. Indeed, were there no other reason, our current legislative situation demands that we proceed to a study of the whole subject of service to the sick ample to give us accurate knowledge of just what if any inadequacies do presently exist. If it does develop that medical care is found inadequate or substandard anywhere in Wisconsin, it then becomes our clear responsibility to do whatever is necessary to see that the situation is corrected.

It is my suggestion, therefore, that the House also authorize the appointment of a second special committee to be assigned to the task of traveling about the State studying in careful detail the various important aspects regarding the adequacy of medical service presently available to our people. I am confident that from within our membership of 2,400 physicians, with the help and advice of my associates, I can secure for you a small group of men who, inspired by the large public interest attached, will be willing to sacrifice one after another weekend during the next few months for this purpose. It is my thought that after initial meetings for organization and rather broad sketching of the problem involved, such a committee might convene for a day or two at a time here and there throughout the State calling into their informal sessions physicians in active practice, both urban and rural, persons designated officially to handle health problems; representatives of groups affiliated with medicine, agencies in charge of relief; and finally interested citizens from all walks of life. After such a series of meetings, supplementary conferences would be held with the representatives of various statewide lay and professional organizations. Complementing this survey, legal and actuarial counsel as well as the services of the paid personnel of our Society would be made available to the committee to aid and assist it in assembling and digesting the material collected.

The procedure thus outlined is not novel for it is one that was used quite recently by the Governor's Committee on Public Welfare. It there proved to be most efficient in securing an over-all view of its problem, at the same time securing from a variety of interested sources a wealth of stimulating suggestions. From the many suggestions that would surely come to such a roving committee, doubtless there would be some that seemed to offer more than casual promise of substantial public good. These, with supportive data, would then be laid before this House of Delegates in a special session if circumstances warrant, but in any event not later than at its next regular session.

This method of determining the actual status of sickness care here in Wisconsin commends itself for several reasons. It assigns to a small and wieldy group the job of surveying broadly, yet in adequate detail, the truth concerning this much-discussed subject. It offers a method of approach that is designed to bring the largest possible volume of firsthand information. It presents a ready means of tapping the thoughts of those outside the profession who have an informed and intelligent interest in these complicated problems. At the same time, it offers a most unique method of learning the minds of those actively engaged in the care of the sick.

And, finally, this sort of a state-wide survey earnestly and honestly pursued, is bound to lead our organization into one or the other of two very important alternative positions. If, as a result of this survey, it develops that the sick of Wisconsin are receiving adequate and high-standard sickness care

under our present system of medical practice, it would fortify our organization in its present stand against all of the popularly proposed forms of state-supplied sickness care. On the other hand, if as a result of this survey, it develops that there are geographic sections within our State or economic groups among our people wherein present sickness care is substandard or inadequate, that discovery will place us under the necessity of some prompt and constructive thinking.

While I have the utmost confidence that these two special committees would render invaluable service to both the profession and to the public, they would be, after all, totally unprepared to go beyond a mere assembling of circumstances and opinions regarding matters as they now actually stand. They would be quite powerless to project their own fact-finding into recommendations upon which this House of Delegates might proceed into informed and intelligent action unless there is, paralleling both surveys, sufficient paid research concerning the economic, actuarial, and legal aspects of the care of the sick in Wisconsin to give force and direction to their studies.

These, then, are my several suggestions concerning our program for the year to come. (1) I do not believe it is safe for our profession to continue longer without knowing its own mind regarding hospital insurance. (2) I do not believe it wise for our organization to face another session of the legislature without the most precise and certain knowledge regarding the adequacy of sickness care throughout our State. And (3) I do not believe it possible to pursue a careful and thorough study of either of these two major subjects without undertaking at the same time a corollary program of paid research, substantial in proportions and dedicated to the task of developing both the actuarial and the legal aspects of the various insurance and tax-supported schemes for the supply of sickness care which have been and will again be proposed to the legislature of our State.

In suggesting a program so broad and involved, I am fully aware of the unavoidable necessity of considerable expense beyond that which has come to be routine in the management of our organization. While it need not be great, some expense would surely be entailed in the work of the two special committees just proposed. To develop worth while research in the actuarial and legal aspects of hospital insurance alone, the fees of experts would doubtless reach or even exceed the considerable sum of $10,000. I would have you recall also that we were confronted with very severe demands in Society activity in connection with the recent legislative session. To make adequate presentations in the session just closed, it was necessary to dip into our meager surplus for some $5,000 beyond regular budgetary provisions. And even the most confident among us hardly dares believe that the drive to socialize medicine in Wisconsin is not to be continued and with increasing force. I mention these several things merely to place before you the quite inescapable necessity for a substantial increase in Society dues if we are to maintain our present Society program and add thereto these obviously necessary projects. As delegates sent here to represent the will of the profession in your districts, it is for you to determine what our program is to be. I would merely call to your attention the fact that throughout my many trips into the State during the year just passed, I have taken pains to sound out the opinion of our membership, and I am absolutely certain the unanimous desire is that this Society go forward, not backward, in its fight.

I should like at this point to bring before you a matter not wholly unrelated to the program which I have just proposed. I repeat my opening remarks that we in Wisconsin are being beset by a powerful group of propagandists who seek to impose upon us a foreign system of sickness care. One cannot go far into a study of this world-wide move of state medicine without learning just what the word "propaganda" means.

The history of socialized medical care in Europe has been so trimmed and dressed by highly skilled and well-endowed propaganda that it has been made to seem a very godsend. Yet, if the actual record of state medicine might be led whole and unadorned into our legislative halls the movement here in America would stop dead in its tracks. So certain is all of this that one wonders why, in its battle against this amazing movement, organized medicine has not had the wit to offset this program of propaganda by a searching investigation of the real truth, coupled with a convincing program of public education regarding it.

From several independent sources throughout the State, doubtless in response to the tremendous influence which our secretary quite evidently exerted in the legislative session just closed, there has come to me the unique suggestion that he be sent to Europe for a matter of months to learn at firsthand the actual facts concerning state medicine.

The suggestion is passed on to you without particular recommendation. However, one needs know but little of the wealth of powerful friends that George has here in Wisconsin, in Chicago, and at Washington to appreciate the certainty that he would find ready access to men of authority and to facts of record were he to be sent on such a mission. Neither does one need much imagination to appreciate the great strategic value that would accrue from such a personally conducted survey whenever, in the years to come, he is called upon to appear before future legislative hearings on the subject.

In submitting this suggestion for your consideration, I merely add two thoughts that developed during my talk with George on the matter. One is the fact that he stands willing and ready to assume the responsibility of this quite unusual task if you so direct. The second is his insistence that it be understood that the suggestion is not his own and that he much prefers that it be dropped unless, in your

wisdom, the good to be gained would thoroughly justify the expense involved.

Each year at this time it is in order for the incoming president to submit to this House of Delegates his recommendations for appointments to fill the vacancies occurring in our various committees. At the same time he is called upon to recommend the particular member of each committee to be so designated as chairman for the coming year. In preparing this list for your consideration, I have proceeded in the belief that change in committee personnel is desirable except where outstanding service or an urgent need for continuity of committee action has seemed to make it advisable to avoid changing. The following are my recommendations for appointments to the several standing committees, each appointment to be for the regular three-year term.

Committee on Public Policy: Dr. R. H. Jackson of Madison to succeed himself and to act as chairman for the coming year.

Editorial Board: Dr. R. W. Blumenthal of Milwaukee to succeed Dr. F. G. Connell and to act as chairman for the coming year.

Committee on Medical Defense: Dr. H. A. Peters of Oconomowoc to succeed Dr. H. E. Bowen and to act as chairman for the coming year.

Committee on Medical Education and Hospitals: Dr. I. R. Sisk of Madison to succeed Dr. J. W. Prentice, Dr. F. D. Murphy continuing as chairman for the coming year.

Committee on Medical Economics: Dr. R. P. Sproule of Milwaukee to succeed Dr. A. J. McCarey and to act as chairman during the coming year.

Committee on Health and Public Instruction: Dr. Eben J. Carey of Milwaukee to succeed Dr. C. H. Christiansen and to act as chairman for the coming year.

Committee on Cancer: Dr. W. D. Stovall of Madison to succeed himself and to continue as chairman for the coming year; Dr. R. W. Hammond of Manitowoc to succeed Dr. F. Eigenberger; Dr. W. G. Sexton of Marshfield to succeed Dr. Paul Doege, and Dr. M. Fernan-Nunez of Milwaukee to succeed Dr. F. B. McMahon.

Committee on Coordination of Medical Services: Dr. S. E. Gavin to serve the remaining two years of the unfulfilled term ending in 1939, and to act as chairman for the coming year; Dr. F. E. Butler of Menomonie to succeed himself for the full term ending in 1940.

In the case of certain special committees, the term of service is for one year only so the complete personnel of the committee must be appointed each year. The following are my recommendations regarding the personnel of these special committees:

Committee on Medical Care for Veterans: Dr. O. A. Fiedler of Sheboygan, chairman; Dr. L. W. Peterson of Sun Prairie, and Dr. J. W. Smith of Milwaukee.

Committee on Medical History: Dr. F. G. Connell of Oshkosh, chairman, together with such associates as he may choose to select.

Committee on Mental Hygiene and Institutional Care: Dr. A. W. Bryan of Madison, chairman; Dr. W. T. Kradwell of Wauwatosa, and Dr. R. E. Mitchell of Eau Claire.

In recommending the re-creation of the special committee of the Society on the subject of mental hygiene and institutional care, I not only commend the retiring committee for its outstanding public service of the last two years, which has already resulted in numerous highly desirable changes in the field of institutional care by the State, but I would charge it with a new responsibility which I am confident it will discharge during the ensuing year to the credit of medicine and to the benefit of the public.

Medicine has long been aware that in the field of law rather tight lines are sometimes drawn in an effort to provide a legal definition of insanity and feeblemindedness. Medicine is also keenly aware that its findings do not always fit into the legal definitions. To this extent there has been a constant conflict between law and medicine—the former trying to fit an individual into a clear classification and the latter recognizing that in many instances no such "fit" can be made.

As one phase of this recurrent problem, there has come to the public attention rather vividly in the last year the question of our legal methods of handling the sexual pervert, who may or may not be feebleminded, who may be normal in other ways but unable to adjust himself to normal society, who may or may not be a sexual offender of a dangerous type, but most of whom are from a medical viewpoint mentally sick. These individuals, when first discovered, may or may not require legal treatment from the viewpoint of public safety but all, of certainty, require medical observation and treatment and sometimes prolonged periods of institutional care. Without such treatment for the illness that afflicts them, punishment in the sense of stated periods of incarceration is not only of little avail but actually may be harmful in that the individual is released a sick man rather than a well and contrite man.

So in re-creating this committee I would ask its members to render of their services to those law enforcement officers who are concerned with this basic and underlying problem in an effort to ascertain whether we may not bring about a change in laws to the end that in this field there will be less concern about actual definitions and more concern with treatment of the sick whether it be for a month or over a long period of years. I am confident that the time is ripe wherein this cooperation that we offer will be welcomed, and I am equally confident that through such cooperative effort progress can be made that will reflect a better degree of humane care and a resultant better degree of public protection.

Committee on Syphilis: Dr. C. W. Giesen of Superior, chairman; Dr. Gunnar Gundersen of La Crosse, Dr. E. L. Tharinger of Milwaukee, Dr. W. J.

McKillip of Milwaukee, and Dr. H. E. Kasten of Beloit.

That, gentlemen, completes all that I have to offer in the way of suggestions in personnel and program for the year to come. Each has been arrived at through careful study and with considerable counsel. They are submitted, however, with the hope that you accept of them only that which, in your wisdom, merits adoption.

In closing, I merely add that I look forward to the coming year and the privilege of working with you in the service of our glorious profession.

On motion by Dr. A. E. McMahon, Glenwood City, seconded by Dr. J. F. Mauermann, Monroe, the appointments of the president-elect were confirmed.

The House adopted by a standing vote the report of the Committee on Necrology.

Amendments to By-Laws

The secretary proposed the following amendment in behalf of the Editorial Board, which would in effect abolish the board and transfer its duties to the Council on Scientific Work:

Amend Chapter VII of the By-Laws as follows:

In Section 1, line 5, strike out the words "An Editorial Board."

Amend Section 2 by adding the sentence: "It shall also be in charge of the affairs of the Journal. Important questions of editorial policy shall be submitted to the Council of the Society and an annual report shall be made to the House of Delegates."

Amend Section 4, relating to Editorial Board and duties by repealing all of said subsection.

Amend Sections 5 to 10 by renumbering so that Section 5 shall be Section 4; and Section 6 shall be Section 5, and accordingly to the end of the chapter.

The secretary further reported a proposed amendment to provide a limited period of time within which appeals from decisions of component societies might be made to the Council as follows:

Amend Section 4, Chapter XI, of the By-Laws as follows:

"Sec. 4. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him shall have the right to appeal to the Council, whose decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Society for final determination. *The period of time within which appeal to the Council may be taken shall be limited to six months following the date of decision by the constituted authority of a component county medical society.*"

Other Reports

The House heard brief additions to the reports of the Committees on Health and Public Instruction, Public Policy, Medical Education and Hospitals, Editorial Board, Cancer, and Coordination of Medical Services, and the Council on Scientific Work.

Upon motion of Dr. L. W. Peterson, Sun Prairie, seconded by Dr. C. A. Armstrong of Prairie du Chien, the first session recessed at 5:45 p.m.

TUESDAY EVENING SESSION

September 14, 1937

The recessed session of the House of Delegates was called to order at 7:00 p.m. by the Speaker, Doctor Rector.

On motion of the chairman of the Committee on Credentials, Dr. W. H. Neumann, the House seated as delegate from Langlade County Dr. William Curran.

Additional reports were made by Dr. Gunnar Gundersen, La Crosse, as delegate to the American Medical Association; the Committee on Medical Economics, and an extended report by the Committee on Medical Defense.

Committee on Medical Defense

Dr. Arthur J. Patek, Milwaukee, secretary of the committee, elaborated upon the printed report contained in the August issue of the Wisconsin Medical Journal, pointing out that under decision of the American Bar Association the medical defense plan of the State of Ohio, a less extensive plan than that prevailing in Wisconsin, had been held to constitute the unauthorized and unethical practice of law. Doctor Patek reported at length on correspondence with the American Medical Association; and the recommendation of the committee that the present medical defense system of the State be dropped, and submitted the following amendment to the By-Laws:

Amend Chapter VII of the By-Laws as follows: Section 1. Strike out the words "Committee on Medical Defense" and substitute therefor "A Committee on Grievances."

Personally, I am very much opposed to the term "Committee on Grievances." That, to my mind, does not mean anything. After all, a grievance may refer to almost any type of grievance any member may have toward his fellow member, a component society or state society. I do not know why we should not call it by another name. One suggestion I have is to call it a Membership Aid Committee, leaving out Medical Defense Committee. But perhaps there may be other suggestions equally good or very much better that might be more acceptable.

Strike out all of Section 5 and substitute therefor the following: "The Committee on Grievances shall investigate all reported claims against members for compensation for injuries said to have resulted from malpractice. It shall determine as nearly as may be practicable the circumstances leading up to the making of the claim itself and the grounds on which the claim is based. The committee shall recommend to the Society from time to time such measures as it deems practicable for the limitation or removal of the causes of such claims. It may, at the request of any member against whom a claim has been made, place at his disposal such evidence as becomes available to the committee. If the committee believes a claim unjust, it shall, at the request of the member against whom the claim has been made, cooperate, so far as it can lawfully do so, with him

and his counsel in defense against it. If the committee believes that the claim that it has investigated is a just claim, the committee may, at the request of the member against whom the claim was made, cooperate with him and his counsel, so far as it can lawfully do so, in effecting an equitable settlement. The committee shall submit a report of its proceedings at such annual meeting of the Society, covering the preceding year, in which report shall be included all recommendations made by the committee during the year looking toward the removal of the causes of claims based on alleged malpractice."

Amend Chapter VIII—Dues and Assessments—by repealing all of Section 3 and renumbering Section 4 so as to make it Section 3.

Mr. Ralph M. Hoyt, Milwaukee, legal counsel for the Committee on Medical Defense, presented additional information relative to the Ohio decision, and recommended the amendment to the By-Laws, as prepared by the committee.

Reports of Officers and Committees were referred to the Reference Committee of the House.

Further Amendments to Constitution and By-Laws Proposed

Attendance at County Society Meetings. The secretary reported that an amendment to the By-Laws presented by Delegate Rector of Outagamie County was before the House as a matter of unfinished business at the 1936 session. The secretary reported further the opinion of legal counsel with respect to this amendment to the effect that it would be proper for county societies but was not germane as an amendment to the Constitution and By-Laws of the State Society. The amendment, by suggestion of the secretary, was referred to the Reference Committee on Resolutions.

Members Shall Be Citizens. The secretary reported that there was before the House an amendment offered by Delegate Rector of Outagamie County in the 1936 session held pending for investigation. The purport of the amendment was to the effect that all new members of the Society must be citizens of the United States. The secretary read the amendment which follows:

Amend Chapter XI of the By-Laws by adding the material italicized.

"Section 3. Each county society shall judge of the qualifications of its members subject to review and final decision of the Council of the State Society. Every reputable and legally qualified physician *who is a citizen of the United States* and who is a bona fide resident of the same county shall be eligible to membership so long as he does not practice sectarian medicine," and so forth.

This amendment has been officially communicated to the several county medical societies and is ready for action by this House.

On motion of Dr. D. J. Twohig, Fond du Lac, seconded by Dr. S. M. B. Smith, Wausau, the amendment was adopted.

Residence Required. The secretary presented to the House a third amendment submitted by Delegate Rector of Outagamie County at the 1936 session, requiring that applicants for membership shall have resided under the jurisdiction of the Society to which they are applicants for a period of one year prior to acceptance. The amendment follows:

Amend Section 3 of Chapter XI of the By-Laws by adding the material italicized. "Section 3. Each county society shall judge of the qualification of its members, subject to review and final decision by the Council of the State Society. Every reputable and legally qualified physician who is a bona fide resident of the same county shall be eligible to membership so long as he does not practice nor profess to practice sectarian medicine or engage in practice in a manner in conflict with the Principles of Ethics of the American Medical Association, or so conduct himself as to defeat or tend to defeat the purposes for which the Society is organized and is operating.

"By proper provision of Constitution and By-Laws, either or both, as may be necessary, the county society may require of an applicant for membership that he shall have resided within the jurisdiction of the Society to which he is applying, for a period of one year as a condition precedent to election to membership."

The amendment was discussed by Doctors R. L. Eagan, La Crosse; C. M. Echols, Milwaukee; William Ryan, Milwaukee; O. A. Stiennon, Green Bay; Herbert Barnes, Delafield, and the speaker.

The amendment was referred to the Reference Committee on Resolutions.

Election of Councilors. The secretary reported that the House was ready to consider an amendment introduced in 1936 by the then delegate of Lincoln County, Dr. R. J. Henderson. Dr. C. A. Armstrong, Prairie du Chien, presented a substitute. After brief discussion both the amendment and the substitute were referred to the Committee to Study Revision of Constitution and By-Law Re Representation and Election of Councilors.

Election of the Secretary. The secretary reported a further amendment officially communicated to the county societies, to amend Section 2 of Article IX of the Constitution as follows:

"Section 2. Officers. The councilors shall be elected annually, the terms of councilors shall be for three years. As nearly as possible one-third of the members of the Council shall be elected each year."

The next sentence as it reads now says "The secretary and treasurer shall be elected by the Council." The proposed amendment takes out the words "The secretary and." That automatically provides that the secretary is elected by the House of Delegates rather than the Council. If you adopt that, it requires a clarifying amendment to the By-Laws which I will defer for the time being. This amendment is now before you for action. If it will further the discussion, the secretary asks to be excused.

The secretary upon his request was excused from the meeting. Opposition to the amendment was

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

stated by Dr. A. E. McMahon, Glenwood City; Dr. R. O. Grigsby, Ashland; Dr. H. A. Peters, Oconomowoc; Dr. D. J. Twohig, Fond du Lac; and R. P. Sproule, Milwaukee.

On motion of Dr. Sproule, seconded by Dr. L. W. Peterson, Sun Prairie, the amendment was laid on the table by unanimous vote. The secretary returned to his duties.

Committee on Nominations

A recess was declared for the purpose of permitting delegates from each of the councilor districts to caucus briefly in the matter of selecting one from each district for a place on the Committee on Nominations.

The House was called to order.

. . . The secretary called the roll and the districts responded as follows with nominations for the Nominating Committee:

First District:
Dr. W. S. Waite of Watertown nominated Dr. W. E. Bargholtz, Reeseville.

Second District:
Dr. R. M. Kurten of Racine nominated Dr. Walter Mauthe, Whitewater.

Third District:
Dr. H. M. Caldwell of Columbus nominated Dr. J. F. Mauermann, Monroe.

Fourth District:
Dr. C. H. Andrew of Platteville nominated Dr. C. A. Armstrong, Prairie du Chien.

Fifth District:
Dr. W. H. Neumann of Sheboygan nominated Dr. J. W. Goggins, Chilton.

Sixth District:
Dr. N. J. Knauf of Chilton nominated Dr. P. R. Minahan, Green Bay.

Seventh District:
Dr. R. L. Eagan of La Crosse nominated Dr. R. L. MacCornack, Whitehall.

Eighth District:
Dr. A. T. Nadeau of Marinette nominated Dr. A. A. Cantwell, Shawano.

Ninth District:
Dr. E. E. Kidder of Stevens Point nominated Dr. S. M. B. Smith, Wausau.

Tenth District:
Dr. A. S. White of Rice Lake nominated Dr. A. E. McMahon, Glenwood City.

Eleventh District:
Dr. R. O. Grigsby of Ashland nominated Dr. H. J. Orchard, Superior.

Twelfth District:
Dr. R. P. Sproule of Milwaukee nominated Dr. A. R. Langjahr, Milwaukee.

Thirteenth District:
Dr. W. S. Bump of Rhinelander nominated Dr. J. D. Leahy, Park Falls.

On motion of Dr. E. F. Schneiders, Madison, seconded by Dr. H. H. Christofferson, Colby, the nominees were named the choice of the House.

Election of Councilors

The following resolution was presented by Dr. J. Newton Sisk, of Madison:

"WHEREAS, In the matter of election of councilors, it has been the custom to provide a short recess period in which delegates from the county societies in the districts affected might caucus; and

"WHEREAS, That procedure is satisfactory except that the time allotted for such conference is far shorter than the seriousness of the election requires; therefore be it

"*Resolved,* That effective at once, in the matter of election of councilors, the usual caucus shall be announced for Tuesday evening, but the actual nomination and election shall be on the morning of the third session in connection with the election of all other officers of this Society."

After discussion it was determined to refer the resolution to the Committee on Resolutions. Upon subsequent motion of Dr. D. J. Twohig, Fond du Lac, seconded by Dr. J. Newton Sisk, Madison, the resolution presented by Doctor Sisk was recalled from the Reference Committee on Resolutions and referred to the Special Committee of the House of Delegates on the election and representation of councilors.

The secretary announced elections to be held as follows:

In the third district, comprising Dane, Columbia–Marquette–Adams, Green, Rock, and Sauk Counties, a councilor is to be elected to succeed Dr. Joseph Dean of Madison for the term ending September, 1940.

In the fourth district, comprising Crawford, Grant, Iowa, Lafayette, and Richland Counties, a councilor is to be elected to succeed Dr. Wilson Cunningham of Platteville for the term ending September, 1940.

In the fifth district, comprising Calumet, Manitowoc, Sheboygan, and Washington–Ozaukee Counties, a councilor is to be elected to succeed Dr. A. H. Heidner of West Bend for the term ending 1940.

In the sixth district, comprising Brown–Kewaunee–Door, Fond du Lac, Outagamie, and Winnebago Counties, a councilor is to be elected to succeed Dr. Stephen E. Gavin of Fond du Lac.

May I make one announcement? When we know the term is to expire in September, the secretary, in January, writes a letter to the secretary of the county society in each of the societies in each district affected, advising him the term of this councilor will expire the following September.

In the first district, due to the sudden death of Dr. A. W. Rogers of Oconomowoc, we are confronted with the necessity of electing a councilor for his un-

expired term ending September, 1939. This comprises the counties of Dodge, Jefferson, and Waukesha.

A recess was declared to permit of caucus in the councilor districts affected.

Dr. Joseph Dean, Madison, was nominated by Dr. L. W. Peterson, Sun Prairie, to succeed himself as councilor of the third district for the term ending September, 1940. It was moved by Dr. E. F. Schneiders, Madison, seconded by Dr. H. M. Caldwell, Columbus, that the ballot of the House be cast for Doctor Dean. There being no further nominees, the ballot was so cast.

Dr. B. I. Pippin, Richland Center, was nominated by Dr. C. H. Andrew, Platteville, to be councilor of the fourth district. The nomination was seconded by Doctor Armstrong of Prairie du Chien, and there being no further nominations, the secretary cast the ballot of the House for Doctor Pippin as councilor of the fourth district for the term ending September, 1940.

Dr. A. H. Heidner, West Bend, was nominated by Dr. J. G. Hoffmann, Hartford, to succeed himself as councilor from the fifth district. Nomination was seconded by Dr. J. W. Goggins, Chilton, and upon motion, there being no further nominations, the secretary cast the ballot of the House for Doctor Heidner as councilor for the fifth district for the term ending September, 1940.

Dr. Stephen E. Gavin, Fond du Lac, was nominated by Dr. R. B. Rogers, Neenah, to succeed himself as councilor from the sixth district. The nomination was seconded by Dr. O. A. Stiennon, Green Bay, and there being no further nominations, the secretary cast the ballot of the House for Doctor Gavin to succeed himself as councilor from the sixth district for the term ending September, 1940.

Dr. H. P. Bowen, Watertown, was nominated by Dr. W. E. Bargholtz, Reeseville, as councilor of the first district for the unexpired term of Dr. A. W. Rogers, Oconomowoc, deceased. The nomination was seconded by Dr. H. A. Peters, Oconomowoc, and upon motion, there being no further nominations, the secretary cast the ballot of the House for Doctor Bowen as councilor for the first district for the unexpired term ending September, 1939.

New Business

Dr. R. L. MacCornack, Whitehall, presented the following resolution from the Trempealeau–Jackson–Buffalo County Medical Society:

"WHEREAS, The practice of preventive medicine has been and should continue to be the work of the family doctor; and

"WHEREAS, The family doctor can best serve the public by administering the accepted preventive measures and by a yearly physical examination of each pre-school and school child; and

"WHEREAS, The program of preventive medicine in the state requires adequate and careful records and a uniform standard technique; and

"WHEREAS, Many of the family doctors would need guidance and assistance to bring the work to a high level of efficiency; therefore be it

"*Resolved*, That the House of Delegates recommend that the Council of this Society, with the advice of the Council on Scientific Work, employ one or more doctors to act as field representatives and to consult with and assist the family doctors in their problems; and be it further

"*Resolved*, That the House of Delegates of the State Medical Society of Wisconsin at the 1937 session request the acceptance and support of this plan by the Wisconsin State Board of Health."

The resolution was referred to the Reference Committee on Resolutions.

Dr. P. R. Minahan, Green Bay, presented the following resolution from the Brown–Kewaunee–Door County Medical Society:

"WHEREAS, There is a world-wide effort to revolutionize medical practice by changing the established relationships between physician and patient into a new order with the state or other third party involved with varying degrees of authority;

"WHEREAS, Many bills are introduced in the State Legislature at each session with the purpose of subordinating the medical profession in matters of medical practice and conduct;

"WHEREAS, Enactments by legislatures, and various other measures, local and national, dealing with medical practice and public health have a direct bearing on our professional lives and the medical interests of the public;

"WHEREAS, The medical fraternity, as represented by the various medical societies, is without any very definite constructive policy relating to the future of medicine, as it may be coordinated with lay and state purposes;

"WHEREAS, The temper of the times precludes success of an unqualified negative attitude in reference to various proposals ranging from communistic to ultra-conservative;

"WHEREAS, Medicine will suffer if we remain indifferent to outside programs and propaganda; therefore be it

"*Resolved*, That this Society recommends the establishment of a general committee, operating within the present medical organizations, devoted to the study of relations with the public, legislative proposals in medical affairs, to the promulgation of measures construed to be in the interests of the public and the profession, and to the furthering of policies that may be determined by the ruling bodies of organized medicine in the manner that may be elected; be it further

"*Resolved*, That this committee be termed the Committee on Medical Economics and be chosen, organized, and conducted in the following manner:

"One member from each county in the State irrespective of local society, excepting that in counties having large populations one member chosen for each 25,000 of population. Where the population exceeds by over three-fifths the maximum population

entitled to one membership but is less than 25,000, one additional member is permitted. Members shall be chosen by the county medical society or the local society that has jurisdiction in any county.

"The several societies in each councilor district shall be notified by councilor of district to elect member or members of committees, and meetings of the committee in councilor district shall be called by councilor. Notice of state meeting shall be by the secretary of State Medical Society."

There are two alternatives. I shall read one and then the other:

"Members shall have councilor district and state organization, with meetings at least once yearly in the State and at least twice yearly in councilor districts; the determination of the councilor district meetings shall be presented at the state meeting of the Economics Committee, and the recommendations of the state committee shall be reported annually to the meeting of the House of Delegates through the legislative committee of that body; it is further

"*Resolved*, That copies of these resolutions be mailed to the councilor of our district, the secretary of the State Medical Society, and the secretaries of the several local medical societies in the State."

The other alternative is:

"Members shall have councilor district and state organization with meetings at least once yearly in State and at least twice yearly in councilor districts. The state meetings shall be restricted to one member from each councilor district, which member shall have been chosen at the last meeting of the councilor district committee preceding the annual meeting of the State Medical Society. The determination of the councilor district meetings shall be presented at the state meeting of the Economics Committee, the recommendations of the state committee shall be reported annually to the meeting of the House of Delegates through the legislative committee of that body."

The resolution was referred to the Reference Committee on Resolutions.

General Discussion—Dues

The floor being open for general discussion, Dr. W. M. Trowbridge, Viroqua, strongly advocated an increase in dues to permit of expanded activities of the State Society and fulfilling the recommendations of the president-elect. Doctor Trowbridge's position was supported by Dr. H. H. Christofferson of Colby.

On motion of Dr. J. F. Mauermann of Monroe, seconded by Dr. L. W. Peterson of Sun Prairie, the meeting adjourned at 9:30 p.m.

WEDNESDAY EVENING SESSION

September 15, 1937

The second session of the House of Delegates was called to order at 6:45 p.m. in the Hotel Schroeder, Milwaukee, Wisconsin, by the speaker, Doctor Rector.

The speaker announced the appointment of the following committee as a special committee of the House to study the election and representation of councilors:

A. J. Wiesender, Berlin, chairman
W. S. Bump, Rhinelander
C. H. Andrew, Platteville
F. D. Murphy, Milwaukee
H. C. Schumm, Milwaukee

Upon suggestion of the speaker, Dr. Harold Marsh of Madison moved that in event that the House had not completed its business, it recess at the hour of 8:30 until 8:00 a.m. Thursday morning in order to permit of the prompt appearance of the president-elect whose address was scheduled at 8:30. The motion was seconded by Dr. H. W. Powers, Milwaukee, and carried.

Dr. W. H. Neumann, Sheboygan, chairman of the Committee on Credentials, reported that the committee recommended the seating of Dr. George C. Schulte, Kenosha, as delegate from Kenosha County, and Dr. George Krahn, Oconto Falls, as delegate from Oconto County, and that the roll of the session be compiled by the attendance slips. Motion was seconded by Dr. L. W. Peterson, Sun Prairie, and carried. Doctor Neumann announced the registration of forty-three delegates and five councilors.

Report of Reference Committee on Reports of Officers on Standing Committees

Dr. William Ryan, Milwaukee, chairman, made the following report in behalf of the committee:

General.—Your committee has reviewed the reports of the Council, treasurer, president, and those of the committees on Public Policy, Health and Public Instruction, Coordination of Medical Services, the Council on Scientific Work, delegates to the American Medical Association, Editorial Board, and the Committee on Medical Economics. The work of these committees is set forth in some detail in the reports which your Reference Committee highly commends.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded by Dr. L. W. Peterson of Sun Prairie and carried . . .

Secretary's Report.—1. The committee has reviewed the report of the secretary with reference to the proposed amendment of the By-Laws limiting the period of time in which appeals may be taken to the Council of the State Medical Society, and your committee recommends:

Adoption of the amendment to the By-Law, Section 4, Chapter XI.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded by Dr. C. M. Echols of Milwaukee and carried . . .

2. The committee has reviewed so much of the report of the secretary as relates to the subject of rural practice and believes that this should be a sub-

ject for discussion in the component county medical societies during the coming year. In view of the fact that our highways have so materially changed since the fee schedule of a dollar a mile was arranged and that this schedule is leading to much misunderstanding and difficulty, we would suggest that the schedule be changed to include time consumed, based on medical service rendered. The delegates are urged to see that this subject is discussed in their respective county societies.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded by Dr. G. W. Neilson of Milwaukee and carried . . .

Medical Defense.—The committee has reviewed the report of the Committee on Medical Defense and recognizes that under the Ohio decision, our medical defense plan must be abandoned. We feel, however, that the present funds of the Committee on Medical Defense should remain segregated to carry out the contracts of the committee until such time as the committee reports to this House that it is fully satisfied all of its obligations are discharged. Your committee has reviewed the proposed amendment of the By-Laws submitted by the Committee on Medical Defense. It strongly recommends this amendment for adoption, which will end the voluntary system of annual payment of $2 for medical defense. The new by-law places emphasis for the future on the professional side of society cooperation instead of legal services and we believe this to be wholly proper and desirable.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded by Dr. A. R. Langjahr of Milwaukee and carried . . .

Recommendations of the President-Elect.—1. Your committee has discussed at length the recommendation of President-Elect Sargent that he be authorized by this House to appoint a special committee composed of members of this Society together with representatives of the hospital and nursing professions to study the entire subject of so-called hospital insurance, with the understanding that the committee is to report its findings and recommendations, if any, to this House of Delegates at its 1938 session.

Your Reference Committee feels that if this recommendation is not adopted the medical profession will of necessity surrender its opportunity to direct public opinion in the field wherein the best guidance of the profession must be had to protect the joint interest of public, profession, and hospitals alike. We, therefore, recommend the adoption of this recommendation authorizing the president-elect to proceed to the appointment of such a special committee. Finally, we would urge that their work be exhaustive and thorough.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded by Dr. J. F. Mauermann and carried . . .

2. Your Reference Committee has also discussed at length the second recommendation of President-Elect Sargent that he be authorized to appoint a special committee to study the general subject of the delivery and quality of medical service in this State and that in such studies the committee seek to ascertain, by travel and special contacts, representative opinions throughout the State.

It appears to your Reference Committee that the end sought by President-Elect Sargent through the appointment of this committee is identical with that sought by Brown–Kewaunee–Door County Medical Society in the resolution submitted by Doctor Minahan. In view of our recommendation that the House authorize the appointment of the state committee, we recommend that the House now table the resolution from Brown–Kewaunee–Door County Society, but that the state secretary communicate with each county medical society and urge all who have not done so to select a committee on medical economics. Such committees representing the fifty-two county medical societies of the State, we believe, should report their representative recommendations and suggestions to the state committee to be appointed by President-Elect Sargent. This in effect will carry out the desires of Brown–Kewaunee–Door County Society and at the same time not provide an unwieldy committee structure. Such committees of the representative societies should act in an advisory capacity to the president's special committee.

Mr. Speaker, I move the adoption of the second portion of the report of the president-elect.

. . . The motion was seconded by Dr. C. H. Andrew . . .

The motion was discussed by Dr. L. W. Peterson, Sun Prairie; Dr. O. A. Stiennon, Green Bay; Dr. C. M. Echols, Milwaukee; Dr. P. R. Minahan, Green Bay, and Dr. William Ryan.

Dr. L. W. Peterson, Sun Prairie, moved to amend the Reference Committee report by specifying that the membership of the special committee be not less than five members nor more than seven members. The amendment was seconded by Dr. Harold Marsh, Madison, but lost. The motion to adopt the report of the Reference Committee was then placed and unanimously carried.

3. Your committee recognizes that proposals to change the system of medical service in this State, interposing government between the physician and the patient, will be recurrent for many sessions to come. We agree with President-Elect Sargent that the basis for substantially all of those proposals is to be found in systems of practice that exist abroad. Finally, we are in agreement with our president-elect that there is material advantage to the Society in firsthand studies of such systems, both from the viewpoint of learning any phases that apparently work well and might be beneficent if applied in this State, and from the equally important viewpoint of ascertaining their faults.

With this background and after long discussion, the committee is of the belief that our secretary

should be delegated by the State Medical Society to study conditions of the delivery of medical service as they exist in countries of Europe now employing cooperative, government, or group type of practice. We believe that this trip should be completed prior to the 1938 session of the House of Delegates.

WM. A. RYAN, M.D.
E. E. KIDDER, M.D.
R. O. GRIGSBY, M.D.
W. J. ALLEN, M.D.
C. H. ANDREW, M.D.

I move the adoption of this section of the report. . . . The motion was seconded by Dr. R. G. Baker of Tomahawk . . .

The motion was discussed at length by Dr. O. A. Stiennon, Green Bay; Dr. L. W. Hipke, Milwaukee; President S. E. Gavin, Fond du Lac; Dr. E. F. Schneiders, Madison, and Dr. J. Newton Sisk, Madison. The question being called for, the speaker put the motion and the report of the Reference Committee was adopted unanimously.

Dr. Rock Sleyster, Wauwatosa, then moved for the adoption of the report of the Reference Committee as a whole. The motion was seconded by Dr. G. W. Neilson, Milwaukee, and carried.

Amendments to By-Laws

The secretary announced, to make effective the report of the Reference Committee just adopted recommending transferal of duties of the Editorial Board to the Council on Scientific Work, the following amendment would be necessary:

Amend Chapter VII of the By-Laws as follows: In Section 1, line 5, strike out the words "An Editorial Board."

Amend Section 2 by adding this sentence (and this relates to the Council on Scientific Work) "It shall also be in charge of the affairs of the Journal. Important questions of editorial policy shall be submitted to the Council of the Society and an annual report shall be made to the House of Delegates."

Amend Section 4 relating to the Editorial Board and duties by repealing all said subsection. Amend Sections 5 to 10 by renumbering. Section 5 shall be Section 4. Section 6 shall be Section 5, an so on to the end of the chapter.

Motion to adopt the amendment was made by Dr. H. W. Powers, Milwaukee, seconded by Dr. W. H. Neumann, Sheboygan, and carried unanimously.

The secretary further announced that to make effective the report of the Reference Committee just adopted, the following amendment to the By-Laws would be necessary:

"Sec. 4. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him shall have the right to appeal to the Council, whose decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Society for final determination. *The period of time within which appeal to the Council may be taken shall be limited to six months following the date of decision by the constituted authority of a component County Medical Society.*"

Adoption of the amendment was moved by Dr. R. L. MacCornack, Whitehall, seconded by Dr. H. H. Christofferson, Colby, and carried unanimously.

The secretary reported finally that to make effective a third recommendation of the Reference Committee just adopted, the following amendment to the By-Laws would be necessary:

Amend Chapter VII on Committees of the By-Laws as follows:

In Section 1 strike out the words "A Committee on Medical Defense" and substitute therefor the words "A Committee on Grievances."

Repeal all of Section 5 as now constituted and substitute therefor the following:

Section 5. The Committee on Grievances shall investigate all reported claims against members for compensation for injuries said to have resulted from malpractice. It shall determine as nearly as may be practicable the circumstances leading up to the making of the claim itself and the grounds on which the claim is based. The committee shall recommend to the Society from time to time such measures as it deems practicable for the limitation or removal of the causes of such claims. It may, at the request of any member against whom a claim has been made, place at his disposal such evidence as becomes available to the committee. If the committee believes a claim unjust, it shall, at the request of the member against whom the claim has been made, cooperate, so far as it can lawfully do so, with him and his counsel in defense against it. If the committee believes that the claim that it has investigated is a just claim, the committee may, at the request of the member against whom the claim was made, cooperate with him and his counsel, so far as it lawfully can do so, in effecting an equitable settlement. The committee shall submit a report of its proceedings at each annual meeting of the Society, covering the preceding year, in which report shall be included all recommendations made by the committee during the year looking toward the removal of the causes of claims based on alleged malpractice.

Amend Chapter VIII—Dues and Assessments—by repealing all of Section 3 and renumbering Section 4 to be Section 3.

Adoption of the amendment was moved by Dr. A. R. Langjahr, Milwaukee, seconded by Dr. F. E. Drew, Milwaukee, and carried unanimously.

Report of Reference Committee on Resolutions

The report of the Reference Committee on Resolutions was presented by Dr. D. J. Twohig, Fond du Lac, chairman, as follows:

At a meeting of the Resolutions Committee of the State Medical Society of Wisconsin, held Wednesday, September 15, 1937, at 8:00 a.m. in Parlor C of the

Hotel Schroeder, Milwaukee, Wisconsin, the following were present:

Dr. D. J. Twohig, Fond du Lac, chairman
Dr. H. M. Caldwell, Columbus
Dr. Ralph P. Sproule, Milwaukee
Dr. W. S. Bump, Rhinelander
Dr. R. L. Eagan, La Crosse (substituting for Dr. N. P. Anderson, La Crosse)

The committee has the following report to present for your consideration and action:

The following resolution was read by the chairman:

"WHEREAS, The practice of preventive medicine has been and should continue to be the work of the family doctor; and

"WHEREAS, The family doctor can best serve the public by administering the accepted preventive measures and by a yearly physical examination of each pre-school and school child; and

"WHEREAS, The program of preventive medicine in the State requires adequate and careful records and a uniform standard technique; and

"WHEREAS, Many of the family doctors would need guidance and assistance to bring the work to a high level of efficiency; therefore be it

"*Resolved*, That the House of Delegates recommend that the Council of this Society, with the advice of the Council on Scientific Work, employ one or more doctors to act as field representatives to contact the county societies to the end that the State Society initiate the program in preventive medicine and public health with the family physician as the key man and correlate and unify this work among the various county societies and to consult with and assist the family doctors in their problems; and be it further

"*Resolved*, That the House of Delegates of the State Medical Society of Wisconsin at the 1937 session request the acceptance and support of this plan by the Wisconsin State Board of Health."

This question was thoroughly discussed by the members of the committee and after discussion Doctor Sproule moved that while the committee sees considerable virtue in this resolution, owing to the fact that there is to be a special committee appointed by the president to make a study of medical conditions in the State as a whole, we refer this resolution to that special committee.

Dr. R. L. Eagan seconded the motion and it was unanimously passed.

Therefore, I move that this portion of the report be adopted.

. . . The motion was seconded by Dr. J. F. Mauermann and carried . . .

Doctor Twohig:

The following resolution was introduced a year ago by Doctor Rector but, in the opinion of legal counsel, its effect may not be accomplished by amending the Constitution and/or By-Laws of the State Medical Society. Your committee may wish, therefore, to recommend the adoption of this resolution with a rewording. The original resolution read as follows:

"WHEREAS, County Societies degenerate and fail to function because of lack of interest and attendance; and

"WHEREAS, The vital welfare of the medical profession is dependent on the interest of its members; and

"WHEREAS, Interest in organized medicine cannot be maintained without participation in its activities; therefore be it

"*Resolved*, That attendance at the County Society meetings be mandatory and, further that County Societies may provide penalties for non-attendance."

The final paragraph of this resolution, in view of the opinion of legal counsel, would have to be modified and if your committee wishes to recommend the resolution for adoption, your secretary suggested that it be in the following form:

"WHEREAS, County Societies degenerate and fail to function because of lack of interest and attendance; and

"WHEREAS, The vital welfare of the medical profession is dependent on the interest of its members; and

"WHEREAS, Interest in organized medicine cannot be maintained without participation in its activities; therefore be it

"*Resolved*, That County Societies are hereby encouraged to provide penalties for unexcused non-attendance of members at regular meetings."

After discussion on this matter, it was unanimously decided when we got back to this type of decision all we could do was to encourage penalties. The committee took no action on this resolution, as it was thought best that each county decide this question for itself.

I move the adoption of this portion of the report.

. . . The motion was seconded by Dr. F. E. Drew of Milwaukee and carried . . .

Doctor Twohig: The following suggested amendment to the By-Laws was read by the chairman and discussion was had thereon:

Amendment introduced by Delegate Rector of the Outagamie County Medical Society. Amend Section 3 of Chapter XI of the By-Laws by adding the material italicized.

"Section 3. Each county society shall judge of the qualifications of its members, subject to review and final decision by the Council of the State Society. Every reputable and legally qualified physician who is a bona fide resident of the same county shall be eligible to membership so long as he does not practice nor profess to practice sectarian medicine, or engage in practice in a manner in conflict with the Principles of Ethics of the American Medical Association, or so conduct himself as to defeat or tend to defeat the purposes for which this Society is organized and is operating.

"*By proper provision of Constitution and By-Laws, either or both as may be necessary, the county society may require of an applicant for membership*

that he shall have resided within the jurisdiction of the society to which he is applying, for a period of one year as a condition precedent to election to membership."

After thorough discussion, Dr. H. M. Caldwell moved that the following resolution be adopted instead:

"*Resolved,* That Section 3 of Chapter XI of the By-Laws be amended by adding the following:

"*By proper provision of Constitution and By-Laws, either or both as may be necessary, the county society may require of an applicant for membership that he shall have resided within the jurisdiction of the society to which he is applying, for a period of one year as a condition precedent to election to membership.*"

The purpose was to leave the matter of requirements of admission to each individual county. We thought it better to have it that way than to make it mandatory on the county society whether they would admit applicants within a year or not. With this amendment, it is possible for them to be let in at any time, but they can also withhold them for a year without creating any hard feeling.

I move the adoption of this portion of the report.

. . . The motion was seconded by Dr. A. R. Langjahr of Milwaukee and carried . . .

This Committee realizes the necessity of the two committees recommended by the president to make a study of medical economics in the State of Wisconsin, but it is impossible for us to arrive at the cost of such a survey in the amount of time that we have at our disposal. The committee also realizes that a very decided increase in the dues of the State Society is required to carry out this program. We, therefore, believe that this matter should be handled through the Council; be it therefore

"*Resolved,* That this matter be turned over to the Council and that they be directed to adjust the dues of the Society according to the needs of such program."

Dr. H. M. Caldwell made the motion that the above resolution be adopted. Dr. R. P. Sproule seconded the motion, and it was unanimously carried.

The speaker announced that to permit of additional time for discussion to the end that it might be full and complete, this portion of the report would be held pending for the recess session Thursday morning.

Amendment to the By-Laws

The secretary announced that to make effective the report of the Committee on Resolutions just adopted, the following amendment to the By-Laws should be adopted:

Amend Section 3 of Chapter XI of the By-Laws by adding the following:

"By proper provision of Constitution and By-Laws, either or both as may be necessary, the county society may require of an applicant for membership that he shall have resided within the jurisdiction of the Society to which he is applying for a period of one year as a condition precedent to election to membership."

Adoption of the amendment was moved by Dr. R. P. Sproule, Milwaukee, seconded by Dr. F. E. Drew, Milwaukee, and carried unanimously.

The hour of 8:30 having arrived, the speaker announced its second session as recessed to 8:00 a.m. the following morning.

THURSDAY MORNING SESSION

September 16, 1937

The recessed session of the House of Delegates was called to order at 8:00 a.m. by the speaker, Doctor Rector.

The secretary reported a quorum present. It was moved by Dr. C. A. Armstrong, Prairie du Chien, that the record of attendance at this session be that compiled by use of the attendance slips. The motion was seconded by Dr. S. M. B. Smith, Wausau, and carried.

The speaker announced receipt of the following report of the Committee on Office Procedure.

Report of the Committee on Office Procedure

A brief report of the work of the committee is printed in the August issue of the Journal and is being supplemented at this time with some additions.

In accordance with action taken by the House of Delegates at their 1936 meeting, the speaker of the House, in cooperation with the councilor of each district, appointed thirteen members of the Society to serve on this committee for the purpose of studying collections, credits, and general office procedure.

The committee realized the enormity of the problems which were before it and agreed that some of the problems requiring solution would be:

(1) The establishment of some medium, possibly short courses, whereby assistants in doctors' offices might be trained to perform their duties in a more efficient manner.

(2) That a factual study by means of a general questionnaire be made of present business methods used in doctors' offices. Also that a survey of now existing county society owned and operated collection and credit bureaus be made in order that this information may be correlated and presented to the membership.

(3) That the problem of training medical students in medical business methods should be studied to determine the feasibility of establishing short courses on this subject in our medical schools.

The committee wishes to suggest that some place be given on the program at the annual meeting, that is, a round table or sectional meeting, for the discussion of office procedure, collections, and credits.

The committee also wishes to point out recent legislation which has made it mandatory that all collection agencies and collectors be licensed. Members of the Society should make certain that any agency or individual collector employed by them is so licensed.

The work of this committee could not go forward as rapidly as desired because of the heavy demands on the time and effort of the central office of the Society by legislative problems and increased activity in other branches of the Society's work.

The committee feels that the work which was assigned to it by the House of Delegates has not been completed and recognizes that there is much that can be accomplished by the committee through future conferences, if continued.

COMMITTEE ON OFFICE PROCEDURE,
Carl D. Neidhold, *Chairman.*

It was moved by Dr. W. M. Trowbridge, Viroqua, that the report be accepted and the committee continued for another year. The motion was seconded by Dr. J. F. Mauermann, Monroe, and carried.

Dues

The secretary reread the report of the Resolutions Committee on this subject matter. The report was discussed at length by Dr. J. F. Smith of Wausau, who advocated action by the House rather than reference to the Council.

It was moved by Dr. E. F. Schneiders, Madison, that dues be established for the year of 1938 at not less than $25 or more than $35, the actual amount to be established by the Council. The motion was seconded by Dr. H. J. Orchard of Superior.

The motion was discussed by Dr. A. M. Christofferson of Waupaca and Dr. J. F. Smith of Wausau.

Dr. F. E. Drew, Milwaukee, moved to amend the motion by establishing the dues at $35.

The motion failed of a second.

There was further discussion by Doctors R. O. Grigsby, Ashland; C. A. Armstrong, Prairie du Chien; H. W. Powers, Milwaukee, and J. Newton Sisk, Madison. Doctor Sisk moved to amend the pending motion as follows:

That dues for the calendar year of 1938 be established at $15, and that there be levied against each member of the Society an assessment of $10,, with the provision that payment of the assessment shall be a prerequisite to continued membership and that any physician now a member of the Society who fails to maintain his membership in 1938 shall not be permitted thereafter to renew his membership by any procedure without payment of dues and assessment for the year 1938.

Doctor Sisk's motion was seconded by Dr. A. E. McMahon of Glenwood City. The motion was discussed by Dr. W. M. Trowbridge, Viroqua; Dr. D. J. Twohig, Fond du Lac; Dr. E. E. Kidder, Stevens Point; Dr. S. M. B. Smith, Wausau, and the speaker.

To facilitate procedure the motion of Doctor Schneiders and the amendment of Doctor Sisk, with consent of the respective seconds, were withdrawn. Doctor Sisk then moved to amend the report of the Reference Committee by providing as follows:

That dues for the calendar year of 1938 be established at $15, and that there be levied against each member of the Society an assessment of $10, with the provisions that payment of the assessment shall be a prerequisite to continued membership, and that any physician now a member of the Society who fails to maintain his membership in 1938 shall not be permitted thereafter to renew his membership by any procedure without payment of dues and assessment for the year 1938.

The motion was seconded by Dr. S. M. B. Smith of Wausau.

The motion was then endorsed by Dr. A. M. Christofferson, Waupaca; Dr. K. H. Doege, Marshfield; Dr. W. M. Trowbridge, Viroqua; Dr. H. P. Bowen, Watertown; Dr. H. M. Caldwell, Columbus; Dr. Herbert Barnes, Delafield; Dr. G. W. Ison, Crandon; Dr. R. L. MacCornack, Whitehall; Dr. G. W. Krahn, Oconto Falls; Dr. H. H. Christofferson, Colby; Dr. O. A. Stiennon, Green Bay; Dr. G. R. Duer, Marinette, and the speaker. The question being called for, the speaker put the motion and announced that it had been carried unanimously.

Dr. D. J. Twohig, Fond du Lac, moved that the report of the Reference Committee on Resolutions as amended with reference to the subject of dues and assessment be adopted.

The motion, seconded by Dr. E. F. Schneiders, Madison, was carried unanimously.

Dr. D. J. Twohig, Fond du Lac, moved that the report of the Reference Committee on Resolutions as a whole be adopted. The motion was seconded by Dr. A. M. Christofferson of Waupaca, and carried unanimously.

Upon motion of Dr. C. A. Armstrong, Prairie du Chien, and seconded by Dr. G. W. Neilson, Milwaukee, the recessed session was adjourned.

THURSDAY MORNING SESSION

September 16, 1937

The third session of the House of Delegates was called to order at 9:50 a.m. by the speaker, Doctor Rector.

The Reference Committee on Credentials reported fifty-one voting members of the House present. Dr. E. F. Schneiders, Madison, moved that the attendance record of this session be compiled by the attendance slips. The motion was seconded by Dr. S. M. B. Smith of Wausau, and carried.

Report of Committee on Nominations

To the 1937 House of Delegates: The Committee on Nominations has the honor to make the following nominations:

President-Elect: A. E. Rector, Appleton.

Speaker of the House of Delegates to succeed A. E. Rector, Appleton, whose term expires: Henry J. Gramling, Milwaukee.

Vice-Speaker of the House of Delegates to succeed Henry J. Gramling, Milwaukee: J. Newton Sisk, Madison.

Delegate to the American Medical Association to succeed Joseph F. Smith, of Wausau, whose term expires: Joseph F. Smith to succeed himself.

Alternate Delegate to the American Medical Association to succeed C. W. Giesen, Superior, whose term expires: C. W. Giesen to succeed himself.

Place of 1938 annual meeting: Milwaukee.

Signed:

W. E. Bargholtz, First District
Walter Mauthe, Second District
J. F. Mauermann, Third District
C. A. Armstrong, Fourth District
J. W. Goggins, Fifth District
P. R. Minahan, Sixth District
R. L. MacCornack, Seventh District
A. A. Cantwell, Eighth District
S. M. B. Smith, Ninth District
A. E. McMahon, Tenth District
H. J. Orchard, Eleventh District
A. R. Langjahr, Twelfth District
J. D. Leahy, Thirteenth District

Election of President

The speaker retired from the session and Vice-Speaker H. J. Gramling, Milwaukee, took the chair.

It was moved by Dr. R. P. Sproule, Milwaukee, that the report of the Nominating Committee relative to the office of president-elect be accepted, and that the secretary cast the ballot of the House for Dr. A. E. Rector. The motion was variously seconded, and there being no further nominations, was carried unanimously.

Election of Speaker

The vice-speaker having been nominated he retired from the session and the secretary read the report of the Nominating Committee.

It was moved by Dr. A. E. McMahon, Glenwood City, that the report of the Nominating Committee be accepted and that the secretary cast the ballot of the House for Dr. Henry J. Gramling as speaker. The motion was seconded by Dr. J. W. Goggins, Chilton, and there being no further nominations, the secretary cast the ballot.

Presentation of President-Elect

Doctor Gramling resumed the chair as speaker and presented to the House Dr. A. E. Rector, Appleton, newly elected president-elect.

Election of Vice-Speaker

It was moved by Dr. H. M. Caldwell, Columbus, that the report of the Committee on Nominations be accepted and that the secretary cast the ballot of the House for Dr. J. Newton Sisk of Madison as vice-speaker for the House of Delegates. The motion was seconded by Dr. D. J. Twohig, Fond du Lac, and there being no further nominations, the secretary cast the ballot.

Delegate to American Medical Association

It was moved by Dr. G. W. Ison, Crandon, that the report of the Committee on Nominations be accepted and that the secretary cast the ballot of the House for Dr. Joseph F. Smith of Wausau, as delegate to the American Medical Association for the term ending September, 1939. The motion was seconded by Dr. George W. Neilson, Milwaukee, and there being no further nominations, the secretary cast the ballot.

Alternate Delegate to American Medical Association

It was moved by Dr. H. J. Orchard, Superior, that the report of the Committee on Nominations be accepted and that the secretary cast the ballot of the House for Dr. C. W. Giesen of Superior, for the term ending September, 1939. The motion was seconded by Dr. A. S. White, Rice Lake, and there being no further nominations, the secretary cast the ballot.

Place of Meeting

It was moved by Dr. E. F. Schneiders, Madison, that the report of the Committee on Nominations be accepted and that the 1938 meeting be held in Milwaukee. The motion was seconded by Dr. J. F. Mauermann, Monroe, and carried unanimously.

Speaker Gramling thanked the House for the honor of his election and presented to members of the House Dr. R. G. Leland, director of the Bureau of Economics of the American Medical Association, who addressed the members briefly.

Following announcements of the secretary it was moved by Dr. R. L. MacCornack, Whitehall, and seconded by Dr. R. P. Sproule, Milwaukee, that he present the appreciation of the Society to the Auditorium Board of Milwaukee, the Common Council of the City of Milwaukee, and Mr. Winnie of Radio Station WTMJ. The motion was carried unanimously.

Dr. J. Newton Sisk of Madison asked that the secretary retire. Doctor Sisk, after discussion, moved that appropriate words be given the secretary and his staff in appreciation of services rendered during the past year. The motion was variously seconded and carried by a rising vote.

On motion of Dr. H. J. Orchard, Superior, seconded by Dr. J. F. Mauermann, Monroe, the House of Delegates adjourned sine die at 10:15 a.m.

Attendance at House of Delegates, Milwaukee, 1937

Society	*Delegate*	*1*	*2*	*3*
Ashland–B–I	R. O. Grigsby, Ashland	x	x	x
	J. M. Dodd, Sr., Ashland*	a	a	x
Barron–W–S–B	A. S. White, Rice Lake	x	x	x
	H. H. Schlomovitz, Barron*	a	a	a
Brown–K–D	P. R. Minahan, Green Bay	x	x	x
	W. W. Kelly, Green Bay*	a	a	a
	O. A. Stiennon, Green Bay	x	x	x
	W. E. Leaper, Green Bay*	a	a	a
Calumet	J. W. Goggins, Chilton	x	x	x
	N. J. Knauf, Chilton*	a	a	a

Society	Delegate	1	2	3
Chippewa	W. H. Fortner, Bloomer	x	x	x
	A. W. Overgard, Stanley*	a	a	a
Clark	H. H. Christofferson, Colby	x	x	x
	M. C. Rosekrans, Neillsville*	a	a	a
Columbia-M-A	H. M. Caldwell, Columbus	x	x	x
	W. H. Costello, Randolph*	a	x	x
Crawford	C. A. Armstrong, Prairie du Chien	x	x	x
	E. T. Ackerman, Gays Mills*	a	a	a
Dane	H. E. Marsh, Madison	x	x	x
	W. A. Werrell, Madison*	a	a	a
	E. F. Schneiders, Madison	x	x	x
	A. R. Tormey, Madison*	a	a	a
	L. W. Peterson, Sun Prairie	x	x	x
	Louis Fauerbach, Madison*	a	a	a
	J. N. Sisk, Madison	x	x	x
	M. J. J. Coluccy, Madison*	a	a	a
Dodge	W. E. Bargholtz, Reeseville	x	a	a
	Mark Temkin, Beaver Dam*	a	a	a
Douglas	H. J. Orchard, Superior	x	x	x
	C. W. Giesen, Superior*	x	x	x
Eau Claire-D-P	J. C. Baird, Eau Claire	a	a	a
	Oscar Knutson, Osseo*	a	a	a
Fond du Lac	D. J. Twohig, Fond du Lac	x	x	x
	C. W. Leonard, Fond du Lac*	a	a	a
Forest	G. W. Ison, Crandon	x	x	x
	O. S. Tenley, Wabeno*	a	a	a
Grant	C. H. Andrew, Platteville	x	x	x
	E. C. Howell, Fennimore*	a	a	a
Green	J. F. Mauermann, Monroe	x	x	x
	W. G. Bear, Monroe*	a	a	a
Green Lake-Waushara	A. J. Wiesender, Berlin	x	x	a
	George Baldwin, Green Lake*	a	a	a
Iowa	C. J. Metcalf, Dodgeville	a	a	a
	W. P. Hamilton, Dodgeville*	x	x	a
Jefferson	H. P. Bowen, Watertown	x	a	x
	W. S. Waite, Watertown*	x	x	x
Juneau	F. H. Ferguson, Elroy	a	a	a
	J. S. Hess, Mauston*	a	a	a
Kenosha	G. C. Schulte, Kenosha	a	x	a
	G. F. Adams, Kenosha*	a	a	a**
La Crosse	N. P. Anderson, La Crosse	a	a	a
	R. L. Eagan, La Crosse*	x	x	x
Lafayette	S. A. J. Ennis, Shullsburg	x	x	a
	E. D. McConnell, Darlington*	a	x	a
Langlade	G. E. Moore, Antigo	a	a	a
	W. P. Curran, Antigo*	a	x	a
Lincoln	E. O. Ravn, Merrill	a	a	a
	R. G. Baker, Tomahawk*	x	x	x
Manitowoc	R. W. Hammond, Manitowoc	a	x	x
	A. P. Zlatnik, Two Rivers*	a	a	a
Marathon	S. M. B. Smith, Wausau	x	x	x
	E. E. Flemming, Wausau*	a	a	a
Marinette-Florence	A. T. Nadeau, Marinette	x	x	x
	J. W. Boren, Marinette*	a	a	a
Milwaukee	Norbert Enzer, Milwaukee	x	x	a
	W. F. Grotjan, Milwaukee*	x	x	x
	L. W. Hipke, Milwaukee	x	x	a
	E. J. Carey, Milwaukee*	a	a	a
	R. P. Sproule, Milwaukee	x	x	x
	C. W. Eberbach, Milwaukee*	a	a	a
	C. M. Echols, Milwaukee	x	x	x
	S. M. Markson, Milwaukee*	a	x	a
	J. W. Smith, Milwaukee	x	x	x
	Irwin Schulz, Milwaukee*	x	x	a
	William Ryan, Milwaukee	x	x	x
	D. D. Mehigan, Milwaukee*	x	x	a
	F. W. Mackoy, Milwaukee	a	a	a
	A. R. Langjahr, Milwaukee*	x	x	x
	F. D. Murphy, Milwaukee	x	a	a
	Millard Tufts, Milwaukee*	x	x	a
	H. W. Powers, Milwaukee	a	x	x
	T. J. Howard, Milwaukee*	a	a	a
	H. C. Schumm, Milwaukee	x	x	x
	Edward Jackson, Milwaukee*	x	x	a
	E. L. Tharinger, Milwaukee	x	x	x
	H. J. Olson, Milwaukee*	a	a	a
	G. W. Neilson, Milwaukee	x	x	x
	Bernard Churchill, Milwaukee*	a	a	a
	F. E. Drew, Milwaukee	x	x	x
	A. H. Lahmann, Milwaukee*	a	a	a
Monroe	A. R. Bell, Tomah	a	a	a
	G. C. Devine, Ontario*	x	x	x
Oconto	A. N. Tousignant, Oconto	x	x	x
	G. W. Krahn, Oconto Falls*	a	x	x
Oneida-Vilas	W. S. Bump, Rhinelander	x	x	x
	O. R. McMurry, Eagle River*	a	a	a
Outagamie	A. E. Rector, Appleton	x	x	x
	R. T. McCarty, Appleton*	x	x	x
Pierce-St. Croix	A. E. McMahon, Glenwood City	x	x	x
	O. H. Epley, New Richmond*	a	a	a
Polk	R. G. Arveson, Frederic	x	x	x
	A. N. Nelson, Clear Lake*	a	a	a
Portage	E. E. Kidder, Stevens Point	x	x	x
	H. P. Benn, Stevens Point*	a	a	a
Price-Taylor	J. D. Leahy, Park Falls	x	x	a
	L. E. Nystrum, Medford*	a	a	a
Racine	R. M. Kurten, Racine	x	x	x
	G. W. Walter, Racine*	x	x	a
Richland	George Parke, Viola	x	x	x
	B. I. Pippin, Richland Center*	a	a	a
Rock	W. J. Allen, Beloit	x	x	x
	W. A. Munn, Janesville*	a	a	a

Society	Delegate	1	2	3
Rusk	L. M. Lundmark, Ladysmith	a	a	a
	Woodruff Smith, Ladysmith*	a	a	a
Sauk	E. V. Stadel, Reedsburg	a	x	x
	H. A. Bachhuber, Sauk City*	x	a	a
Shawano	A. A. Cantwell, Shawano	x	x	a
	F. L. Litzen, Gresham*	a	a	a
Sheboygan	W. H. Neumann, Sheboygan	x	x	x
	G. J. Hildebrand, Sheboygan*	a	x	a
Trempealeau-J-B	J. P. Reinhardt, Fountain City	a	a	a
	R. L. MacCornack, Whitehall*	x	x	x
Vernon	W. M. Trowbridge, Viroqua	x	x	x
	W. H. Remer, Chaseburg*	a	a	a
Walworth	Walter Mauthe, Whitewater	x	a	a
	D. H. Jeffers, Lake Geneva*	a	a	a
Washington-Ozaukee	J. G. Hoffmann, Hartford	x	x	a
	O. J. Hurth, Cedarburg*	x	x	a
Waukesha	H. A. Peters, Oconomowoc	x	x	a
	Herbert Barnes, Delafield*	x	x	x
Waupaca	A. M. Christofferson, Waupaca	x	x	x
	R. K. Irvine, Manawa*	a	a	a
Winnebago	R. B. Rogers, Neenah	x	x	x
	J. M. Conley, Oshkosh*	a	a	a
Wood	K. H. Doege, Marshfield	x	x	x
	F. X. Pomainville, Wisconsin Rapids*	a	x	x

x Present.
a Absent.
* Alternate.
** Illness—subsequent death.

Minutes of November Council Meeting

1. Call to Order

The special meeting of the Council was called to order by the chairman, Dr. S. E. Gavin, at the University Club, Milwaukee, at 9:30 a. m., Sunday, November 7.

2. Roll Call

The secretary announced a quorum present as follows: councilors Gavin, Bowen, Pope, Heidner, Duer, Jegi, Johnson, Lambert, Pippin, Butler, Smith, and Lettenberger; President Sargent; President-Elect Rector; Treasurer Sleyster; Delegates to A. M. A. Gundersen and Taylor; the secretary and assistant secretary. The secretary also announced the presence of the following guests of the council: Members of the Special Committee of the House of Delegates on Election and Representation of Councilors, Wiesender, Andrew, Bump, Murphy and Schumm; Members of the Special Committee to Study the Distribution of Sickness Care in Wisconsin, Arveson, Christofferson, Blumenthal, Sisk and Gramling (also speaker); Dr. S. J. Seeger, chairman of the Special Committee to Study Hospital Insurance; Mr. Theodore Wiprud, executive secretary, Medical Society of Milwaukee County; Dr. Ralph P. Sproule, chairman of the Committee on Medical Economics; and Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association.

3. Farm Security Administration

The secretary announced that at 10:30 the Council would hear Dr. R. C. Williams, Washington, D. C., medical director of the Federal Farm Security Administration (formerly Resettlement Administration) and his associates, on the subject of medical service for clients of the Administration in Wisconsin. After miscellaneous announcements Doctor Williams was presented to the Council, with his associates, including Mr. Penn Wright, supervisor, State Cooperative Headquarters, Madison; Mr. Arlie Mucks, state director, Madison, and Mr. James D. McGuire, regional attorney, U. S. Department of Agriculture, Milwaukee.

Following the presentation by Doctor Williams and associates, the subject matter was discussed at length until recess for luncheon at 12:30 and, upon reconvening at 2:00, until 2:45.

It was moved by Pope–Jegi that the problem presented by the Farm Security Administration be referred to the Special Committee to Study the Distribution of Sickness Care in Wisconsin with instructions to report to the January meeting of the Council. Carried.

4. Special Assessment Budget

The secretary, on behalf of the Executive Committee of the Council, presented the following proposed budget for the expenditure of funds raised by the 1938 special assessment voted unanimously by the House of Delegates:

> Under the $10 assessment for 1938 are to be financed the activities of the special committees on (1) study of hospital insurance, and (2) distribution of sickness care in Wisconsin, as well as the studies of the secretary abroad. To the end that the committee work may be completed in so far as field trips are concerned prior to the time that the secretary leaves for abroad (March), it is essential that this work be started at once. While the normal budget of the Society will be passed upon at the January meeting of the Council, as is customary, it is essential that the assessment budget for these extraordinary activities of the Society be established at once.

To permit Council consideration of the assessment budget, a meeting of the Executive Committee of Council was held at Milwaukee, Saturday, October 23. Members present were Chair-

man Gavin, President Sargent, President-Elect Rector, councilors Heidner and Lambert, the secretary and the assistant secretary. Doctor Sleyster was absent because of illness. After detailed consideration, the Executive Committee of the Council commends to the Council the following assessment budget:

1. *To general fund* ..... $ 2,525.00
   Purpose: The normal receipts of the Society are based on 2,368 members. By sole reason of the assessment it is anticipated that there may be a resultant loss in membership for 1938 of 168 members. The resultant loss in revenue to the general fund is accordingly offset by this first item.
2. *One male stenographer-reporter at $125 per month* 1,500.00
   Purpose: Both special committees will require extensive stenographic service and in the case of the so-called "roving committee" a reporter must be present to note in abstract the essential facts and points of view presented. Because of the extensive travel involved a male reporter is suggested.
3. *Special Committee to Study Hospital Insurance*
   a. Actuarial study under Herman L. Ekern, $10,000.00.
   b. Five meetings of ten-member committee, travel, meals, hotel ($175 per meeting), $875.00.
   c. Postage, printing, supplies, and pertinent books and publications, $600.00 ..... 11,475.00
4. *Special Committee to Study the Distribution of Sickness Care in Wisconsin*
   a. Eight two-day meetings of five-member committee plus reporter and secretary traveling one day in advance to arrange interviews (travel, hotel, meals, expenses of invited laymen), $2,000.00.
   b. Postage, printing, supplies, and pertinent books and publications, $500.00 ..... 2,500.00
5. *Study of sickness care abroad, three to four months*
   Consolidated estimates of persons on recent travels similar in scope offer as basis an all-inclusive expense (not first class) of $30 to $35 per day. Added expense conditional upon use of films, interpreter service, if required, and purchase of material. Total not to exceed 4,000.00

Grand total $22,000.00
Income 2,200 members at $10 ..... $22,000.00

The budget items were discussed by Dr. Stanley J. Seeger, President Sargent and others, and thereafter the following resolution of the Special Committee to Study Hospital Insurance (adopted October 31) was also submitted:

> The Special Committee to Study Hospital Insurance held an all-day meeting in Milwaukee, Sunday, October 31. Mr. Herman L. Ekern, insurance counsel (formerly commissioner of insurance and attorney general of Wisconsin), was present, and the broad subject of insurance and, subsequently, hospital insurance was discussed in rather elaborate detail. At the conclusion of the meeting in the late afternoon the following motion was adopted by unanimous vote:
>
> Subject to the approval of the Council as to the appropriation involved, the Special Committee to Study Hospital Insurance will enter into contractual relationship in behalf of the State Medical Society with the Honorable Herman L. Ekern to the amount of $10,000, for the purpose of securing for the special committee statistical, insurance, legal and actuarial information, and perfect if possible with the special committee, a workable program of hospitalization insurance, to be submitted to the 1938 House of Delegates. In entering upon such an agreement with Mr. Ekern the chairman of the committee, Dr. Stanley J. Seeger (a) will specify that use of the facilities of the headquarters office of the Society by Mr. Ekern will not be to the extent requiring further appropriation than that set forth in the assessment budget now before the Council; (b) further, he will specify that the committee has the privilege of ending the study at any point on payment in full for services that have been rendered to that date; (c) further, that the services of Mr. Ekern under no circumstances are to (exceed the appropriation stipulated ($10,000); and finally (d), all statistical, insurance, legal and actuarial data compiled by Mr. Ekern and any proposals for plans that he may develop from such data shall become the sole property of the State Medical Society of Wisconsin.

Secretary's Note.—This proposal of the committee is in accordance with the recommendation of the Executive Committee of the Council that the sum of $10,000 will be required to compile the statistical, insurance, legal and actuarial data essential to the carrying forward of the work of the committee. Mr. Ekern assured the committee that for the sum stated he "will see it through" and all present individually indicated that they were fully satisfied that the work outlined was basically necessary and would be the only sound foundation for any conclusive effort.

After further discussion it was moved by Duer–Lambert that the assessment budget and proposed

agreement with Mr. Ekern be approved. Carried unanimously.

5. Secretaries' Conference

On behalf of the Executive Committee of the Council the secretary proposed that travel expense for the calendar year of 1938 be reduced from $1800 to $900 and that the $900 so released be used to defray the expense of holding a conference for secretaries and other officers of the component county medical societies in Milwaukee on Sunday, January 9. This conference, as its predecessors, will be known as the Secretaries' Conference and necessary expense of secretaries in attending the conference will be paid. Other officers will be invited but without travel expense, except where such officer is substituting for a secretary.

After discussion it was moved by Johnson–Butler that the recommendation of the Executive Committee be adopted. Motion carried unanimously.

6. Radio Presentations

On behalf of the Executive Committee the secretary further requested that the sum of $415 be now approved as an item for the 1938 budget for the preparation of radio scripts. After discussion it was moved by Jegi–Johnson that the recommendation of the Executive Committee be accepted. Carried unanimously.

7. Council on Scientific Work

The secretary called to the attention of the Council a recommendation of the Executive Committee that the president of the Society be given power to appoint members of the Council on Scientific Work, and that appropriate change in the By-Laws, while not needed for the present, be presented at the 1938 House of Delegates to carry into effect this policy as a permanent one. After discussion it was moved by Butler–Lettenberger that the recommendation of the Executive Committee be adopted. The motion was carried unanimously. President Sargent thereupon announced the appointment of Dr. George W. Krahn, Oconto Falls, for the term ending September, 1942.

8. Miscellaneous Business

The secretary discussed the subjects of membership lapse; publication of proceedings of the House of Delegates; recognition of Advisory Board; designation of medical specialists; and an offer by Doctor Ochsner with reference to his publication "Social Security." The Council announced that publications of official proceedings of the House and Council were to follow the format adopted by the Journal of the American Medical Association.

9. Adjournment

There being no further business the Council adjourned at 5:00 p. m.

J. G. CROWNHART,
Secretary.

Approved:
S. E. GAVIN, M. D.,
Chairman of Council.

Officers and Committees, 1938

President
James C. Sargent, Milwaukee

President-Elect
A. E. Rector, Appleton

Secretary
Mr. J. G. Crownhart, Madison

Assistant Secretary
Mr. George B. Larson, Madison

Treasurer
Rock Sleyster, Wauwatosa

Speaker, House of Delegates
Henry J. Gramling, Milwaukee

Vice-Speaker
J. Newton Sisk, Madison

Councilors

First: Dodge, Jefferson and Waukesha County Societies. H. P. Bowen, Watertown, 1939.

Second: Kenosha, Racine and Walworth County Societies. Frank W. Pope, Racine, 1939.

Third: Dane, Columbia–Marquette–Adams, Green, Rock and Sauk County Societies. Joseph Dean, Madison, 1940.

Fourth: Crawford, Grant, Iowa, Lafayette and Richland County Societies. B. I. Pippin, Richland Center, 1940.

Fifth: Calumet, Manitowoc, Sheboygan and Washington–Ozaukee County Societies. A. H. Heidner, West Bend, 1940.

Sixth: Brown–Kewaunee–Door, Fond du Lac, Outagamie and Winnebago County Societies. S. E. Gavin, Fond du Lac, 1940.

Seventh: Juneau, La Crosse, Monroe, Trempealeau–Jackson–Buffalo and Vernon County Societies. H. A. Jegi, Galesville, 1938.

Eighth: Marinette–Florence, Oconto and Shawano County Societies. G. R. Duer, Marinette, 1938.

Ninth: Clark, Green Lake–Waushara, Lincoln, Marathon, Portage, Waupaca and Wood County Societies. Joseph F. Smith, Wausau, 1938.

Tenth: Barron–Washburn–Sawyer–Burnett, Chippewa, Eau Claire – Dunn – Pepin, Pierce – St. Croix, Polk and Rusk County Societies. F. E. Butler, Menomonie, 1938.

Eleventh: Ashland–Bayfield–Iron and Douglas County Societies. F. G. Johnson, Iron River, 1939.

Twelfth: The Medical Society of Milwaukee County. Joseph Lettenberger, Milwaukee, 1939.

Thirteenth: Forest, Langlade, Oneida–Vilas and Price–Taylor County Societies. J. W. Lambert, Antigo, 1938.

Section on Radiology:
J. C. Baird, Eau Claire, chairman
F. C. Christensen, Racine, vice-chairman
R. F. Wilson, Beloit, secretary–treasurer

Section on Eye, Ear, Nose and Throat:
E. G. Nadeau, Green Bay, chairman
L. A. Copps, Marshfield, vice-chairman
John B. Hitz, Milwaukee, secretary-treasurer

STANDING COMMITTEES

The Committee on Public Policy:
R. H. Jackson, Madison, chairman, 1940
Carl W. Eberbach, Milwaukee, 1939
S. E. Gavin, Fond du Lac, 1938
President, president-elect, secretary, ex officio

The Committee on Grievances:
H. A. Peters, Oconomowoc, chairman, 1940
A. J. Patek, Milwaukee, 1939
E. G. Ovitz, Laona, 1938

The Committee on Medical Education and Hospitals:
F. D. Murphy, Milwaukee, chairman, 1939
Ira R. Sisk, Madison, 1940
W. S. Middleton, Madison, 1938

The Committee on Medical Economics:
R. P. Sproule, Milwaukee, chairman, 1940
A. E. McMahon, Glenwood City, 1939
A. E. Rector, Appleton, 1938

The Committee on Health and Public Instruction:
Eben J. Carey, Milwaukee, chairman, 1940
E. E. Kidder, Stevens Point, 1939
W. M. Wochos, Kewaunee, 1938

The Committee on Necrology:
Councilors and secretary

The Committee on Cancer:
W. D. Stovall, Madison, chairman, 1940
H. T. Barnes, Delafield, 1939
D. J. Twohig, Fond du Lac, 1939
D. L. Dawson, Rice Lake, 1938
R. L. MacCornack, Whitehall, 1938
C. G. Richards, Kenosha, 1938
Gideon Benson, Richland Center, 1938
G. E. Moore, Antigo, 1938
E. E. Evenson, Wittenberg, 1939
A. C. Taylor, Washburn, 1939
R. W. Hammond, Manitowoc, 1940
W. G. Sexton, Marshfield, 1940
M. Fernan-Nunez, Milwaukee, 1940

The Committee on Coordination of Medical Services:
S. E. Gavin, Fond du Lac, chairman, 1939
F. E. Butler, Menomonie, 1940
Joseph F. Smith, Wausau, 1938
President
Secretary, ex officio
Representatives of University of Wisconsin Medical School and the Wisconsin General Hospital

SPECIAL COMMITTEES

(Appointed annually by the president)

The Committee on Medical Care for Veterans:
Otho A. Fiedler, Sheboygan, chairman
L. W. Peterson, Sun Prairie
J. W. Smith, Milwaukee

The Committee on Medical History:
F. Gregory Connell, Oshkosh, chairman
(Power to appoint associates)

The Committee on Mental Hygiene and Institutional Care:
A. W. Bryan, Madison, chairman
W. T. Kradwell, Wauwatosa
R. E. Mitchell, Eau Claire

The Committee on Syphilis:
C. W. Giesen, Superior, chairman
Gunnar Gundersen, La Crosse
E. L. Tharinger, Milwaukee
W. J. McKillip, Milwaukee
H. E. Kasten, Beloit

The Special Committee to Study Hospital Insurance:
S. J. Seeger, Milwaukee, chairman
J. G. Crownhart, Madison, secretary
S. E. Gavin, Fond du Lac
R. G. Arveson, Frederic
E. L. Tharinger, Milwaukee
A. H. Heidner, West Bend
Sister Mary Bernadette, St. Mary's Hospital, Madison
Rev. H. L. Fritschel, Supt., Milwaukee Hospital, Milwaukee
Mrs. C. D. Partridge, 3727 East Layton Avenue, Cudahy
Mr. C. I. Wollan, Supt., La Crosse Lutheran Hospital, La Crosse

The Special Committee to Study the Distribution of Sickness Care in Wisconsin:
R. G. Arveson, Frederic, chairman
H. J. Gramling, Milwaukee
J. Newton Sisk, Madison
H. H. Christofferson, Colby
R. W. Blumenthal, Milwaukee

The Special Committee on Safety on Public Highways:
Carl W. Eberbach, Milwaukee, chairman
Millard Tufts, Milwaukee
Arthur G. Sullivan, Madison

COMMITTEES OF COUNCIL

The Executive Committee of the Council:
President
Chairman of Council
Treasurer
Secretary
J. W. Lambert, Antigo
A. H. Heidner, West Bend
A. E. Rector, ex officio

The Advisory Committee to the Woman's Auxiliary:
F. W. Pope, Racine, 1938
S. E. Gavin, Fond du Lac, 1940
F. Gregory Connell, Oshkosh, 1939
President and secretary, ex officio

The Auditing Committee:
F. W. Pope, Racine
Joseph F. Smith, Wausau
G. R. Duer, Marinette

The Advisory Committee on Care of Crippled Children:
J. W. Powers, Milwaukee, chairman
A. T. Nadeau, Marinette
C. M. Kurtz, Madison
H. Kent Tenney, Madison
Secretary, ex officio

The Council on Scientific Work:
W. S. Middleton, Madison, chairman, 1939
J. A. Evans, La Crosse, 1940
Eben J. Carey, Milwaukee, 1941
H. A. Sincock, Superior, 1938
G. W. Krahn, Oconto Falls, 1942

The Advisory Committee on Cardiac Conditions in Crippled Children:
John Huston, Milwaukee, chairman
M. F. Rogers, Milwaukee
L. M. Warfield, Milwaukee
C. M. Kurtz, Madison
Secretary, ex officio

The Committee on Goiter:
A. S. Jackson, Madison, chairman
M. O. Boudry, Waupaca
F. D. Murphy, Milwaukee
C. A. Harper, Madison
E. L. Sevringhaus, Madison
C. N. Neupert, Madison

The Advisory Committee to Wisconsin Interscholastic Athletic Association:
O. R. Lillie, Milwaukee
R. S. Cron, Milwaukee
R. E. Burns, Madison

The Advisory Committee on Visual and Hearing Defects:
John B. Hitz, Milwaukee
E. G. Nadeau, Green Bay
E. E. Neff, Madison

The Special Committee on Lien Law:
R. C. Buerki, Madison, chairman
C. D. Neidhold, Appleton
Secretary
Legal counsel

The Special Committee on Open Panels:
The Standing Committee on Medical Economics

COMMITTEES OF HOUSE OF DELEGATES

The Committee to Study Revision of Constitution and By-Laws, Re Representation and Election of Councilors:
A. J. Wiesender, Berlin, chairman
W. S. Bump, Rhinelander
C. H. Andrew, Platteville
F. D. Murphy, Milwaukee
H. C. Schumm, Milwaukee

The Committee on Office Procedure:
(Appointed by speaker and councilors)
First: G. E. Eck, Lake Mills
Second: T. C. Hemmingsen, Racine
Third: H. M. Caldwell, Columbus
Fourth: Rush Godfrey, Lancaster
Fifth: A. C. Radloff, Plymouth
Sixth: C. D. Neidhold, Appleton, chairman
Seventh: Robert Krohn, Black River Falls
Eighth: R. C. Cantwell, Shawano
Ninth: F. A. Marrs, Stevens Point
Tenth: G. W. Beebe, Eau Claire
Eleventh: J. W. McGill, Superior
Twelfth: R. E. Fitzgerald, Milwaukee
Thirteenth: E. G. Ovitz, Laona

BOARD OF INTERNAL MEDICINE

The American Board of Internal Medicine will hold its next written examination on Monday, February 14, 1938, in various centers of the United States and Canada. The examination will consist of two sessions of three hours each with the morning session held at 9:00 o'clock A. M. and the afternoon session at 2:00 o'clock P. M.

The candidates who are successful in this written examination will be eligible to take the practical examination which will be held in San Francisco the Friday and Saturday prior to the opening of the Annual Session of the American Medical Association in June, 1938.

The final date for filing applications for this written examination is January 15, 1938, and all applications should be in the office of the chairman before that date.

For further particulars and application blanks please address: Dr. Walter L. Bierring, M. D., Chairman of American Board of Internal Medicine, Suite 1210, 406 Sixth Avenue, Des Moines, Iowa.

Supplementary Report of the Secretary*

This supplementary report of the secretary is submitted upon the advice of the president, who believes that the interests of the Society will be best served when members of the Society, particularly the members of the House, are given what might be termed an over-all view of the Society's central office. Each year the reports of officers and committees set forth problems under consideration and describe the achievements of the Society since the preceding annual meeting. This provides a picture of the activities but does not particularly acquaint the reader with the duties of the staff itself. This supplementary report is an effort to provide the latter information. In the interest of brevity, some phases of the work are given in outline form, while others, either because of their importance or the time they consume, are given in detail.

THE OFFICES

The headquarters office is located in the Washington Building in Madison, one block from the State Capitol. There is a large office for the stenographic-clerical force, a small private office for the secretary and one for the assistant secretary, a separate vault for the preservation of old records, a storeroom, and a small office for the addressograph machines and for proofreading purposes. The rental of $95 a month is low for office space in Madison, and comparable space in a new building would cost from $160 to $175 a month. The offices are light, have sufficient space, and are convenient to the Capitol building.

GENERAL SECRETARIAL DUTIES

With the steadily increasing activities of the State Medical Society, the number of visitors at the headquarters office increases each year. At the best the following notations are but suggestive of the questions of those who call daily to discuss subjects of importance in discharging the obligations of medicine as an organization in the State. An official delegation from the masseurs of the State comes to discuss legislation to be proposed by them in hopes that it may be so worded as not to conflict with existing important public health laws. A member stops in to discuss a change of location. Another seeks information on laws respecting the broad subject of consultations. The director of the Bureau of Infant and Maternal Welfare seeks the Society's approval for a film on maternal care to be shown in public motion picture theaters. The State health officer asks that the secretary come in for a conference on law enforcement. A representative of an industry that covers the State asks that we strike from his list of two hundred physicians on panels the names of all non-members. The Executive Office wishes suggestions for medical service in State parks.

In addition to routine mail answered by the secretarial staff, from ten to thirty letters a day are received from members, component societies, the American Medical Association, other constituent state societies, and government officials which require personal letters based on study by the secretary and his assistant. The following subjects are typical of those on which information is sought: The Bureau of Legal Medicine and Legislation of the American Medical Association inquires as to the intent of the Society relative to its medical defense system, in view of the Ohio case. The Medical Exhibitor's Association sends constructive suggestions for the holding of commercial exhibits in connection with the State meeting. The United States Public Health Service writes with reference to serodiagnostic tests of accepted value. The Resettlement Administration desires a conference on medical service for their 9,000 clients throughout the State. A layman has an insert card for physician's statements that he wishes approved. The State Nurses' Association extends an invitation for an hour address by the secretary on the subject of legislation at their annual meeting. A member in rural practice feels that requirements of a given hospital for a consulting physician from their staff unduly requires a division of fees. A letter from a neighboring state secretary asks about the Biemiller bills and for material relating to the various subjects included therein. The director of the Hall of Health wants exhibitors' badges. The mayor of a city asks about statements in printed material circulated by a chiropractor decrying the practice of tuberculin tests and vaccination. The Medical Society of Milwaukee County inquires about panels under the Compensation Act. A physician who controls a proprietary hospital asks about the legality and feasibility of so-called hospital insurance.

In addition, there are letters to be written in order to secure or furnish information on pending Society projects. The Resettlement Administration is asked for numerous further essential details. An appointment is made for a visit in Milwaukee two days hence on annual meeting matters. An exhibit of the Society is planned. A bulletin to secretaries of county societies is planned advising of the availability of program material for fall meetings. A newspaper clipping relating to a plan for voluntary

* Submitted to the House of Delegates two weeks prior to its annual meeting.

sickness insurance in Toronto is the basis of an inquiry to the offices of the Canadian Medical Association. The sheriff of Waupaca County calls for information on a quack they have arrested. The State investigator is located and promises to leave at once. The sheriff is notified and a list of previous convictions from our investigation file is read to him.

Obviously constant effort must be made to sort out the important from the relatively unimportant. Mail must be answered at once if at all possible to provide promptness of service to the members. Letters sent from the office requiring answers are kept in a pending file to make certain that the answers are received. Projects of the Society must be given constant preference in time that the headquarters office does not become a place only for routine business. With a small staff each one must not only know his or her work but also the routine of one other person on the staff that vacations, travel, or temporary illness do not, in a sense, stop the office procedure.

PERSONNEL

The headquarters staff is composed of the secretary; Mr. Larson, assistant secretary; and the following assistants. Miss Stolp, trained as a medical secretary, acts as assistant to the secretary and as office manager. In addition to her work on the Journal, she takes dictation from the secretary, writes letters sketched by him, and has charge of the filing system.

Miss Ripley has been with the Society for twelve years and her work is reported under membership and the Journal as is that of Miss Cridland.

Miss Brandt has charge of the weekly press releases and the entire correspondence in the field of the campaign for the prevention of cancer, assists in preparation of radio scripts, and takes dictation. Miss Wichern takes dictation from Mr. Larson, keeps the accounts for the budget and daily expenditures, handles correspondence with the treasurer, and does other work of a general stenographic nature.

MEMBERSHIP

Membership in the State Medical Society of Wisconsin is by membership in one of the fifty-two component county medical societies of the State. The headquarters office each year in the early fall has statements for dues printed, and these are sent in sufficient quantities to the secretaries of each of the component county medical societies. Secretaries of the county societies make remittance to the State office at irregular intervals, but generally speaking on the average of once every ten days.

The membership record must be so arranged that (1) the names of members and delinquents in any given county medical society are available, and (2) given the name of a physician, it readily may be ascertained whether or not he is a member. This necessitates entry of the payment of dues upon two records: (1) a loose-leaf record book of membership by societies (with the exception of Milwaukee County where the equivalent record is maintained by cards), and (2) a set of membership cards maintained in an alphabetical file to show membership status as to whether paid for the current year, in arrears, or deceased.

When dues from the county secretary are received a receipt for the full payment is made out, after checking the amount to see that the remittance is correct. The receipt is mailed to the secretary with stub maintained in this office numbered to correspond with a number given to the letter of remittance. This perfects a financial record that the auditor may check annually.

Next, the proper entries are made on the membership records.

Third, the membership certificates are prepared and mailed to the secretaries for signature and remailing to the members. Each secretary is supplied with mailing envelopes for this purpose prior to the first of the year.

Fourth, a record is made of all new members, changes of address, transfers, deaths, and so forth, so that a report may be sent to the membership department of the American Medical Association, as required on the last day of each month.

Fifth, members fall in arrears when dues are unpaid on April 1, and at this time a consolidated list of those then delinquent must be furnished the American Medical Association. A copy of such list for the respective county societies is mailed each county secretary so that any error may be detected promptly. After April 1 a monthly membership report is sent to the American Medical Association reinstating those men whose dues may have been received during the month. During the months of April, May, June, and July two such reports are sent each month to secure prompt reinstatements. On June 1 a letter is mailed to each councilor listing the delinquents in his district. This is followed by a letter to all those still in arrears, signed by the retiring president. The early part of October the newly elected president sends a letter to all those whose dues remain unpaid. This letter, which is also prepared in the headquarters office, is followed, in December, by a final letter from the secretary of the Society.

Sixth, initials and spelling must be carefully checked that remittances are not credited to the wrong member. With 2,400 members there are countless instances of identical last names but different initials, members whose names resemble each other even as to initials except for one letter in spelling, and even some instances in which we have two members with the same name and initials but not the same address. It is obviously most important that membership records be handled without a single error.

Seventh, changes in address must be noted and checked with the name of the member, and a list of such changes appears in the Journal each month. New addressograph stencils must be ordered and, when received, inserted in the addressograph file. Post-office requirements for mailing the Journal provide that they must be sorted as to cities, special routes, and so forth. The stencil files must be maintained accordingly and without error, for errors mean that the Journal, bulletins, and like material will be undelivered. Separate stencil lists for officers of the county medical societies, members of the Council, and members of committees are also maintained that bulletins may be mailed without delay to officers on any occasion of necessity.

Finally, there is received from the State Board of Medical Examiners following each of their meetings, a list of all licensed to practice medicine in the State. To these physicians is sent a letter, signed by the secretary, welcoming them to practice in the State, offering services to secure proper locations, enclosing a membership application blank, and offering to see that they are invited guests at the next meeting of the county medical society in whose territory they report they will be located. A letter is also sent to those licensed just prior to the annual meeting (usually a hundred or more) inviting them to be guests at the coming meeting and advising them that a copy of the Journal, with the program, has been mailed to them under separate cover. This service to licentiates not only results in applications for membership but also assists them to find locations where physicians are needed. It also assists members in that inquirers who mention locations wherein a sufficient supply or over-supply of physicians exists, are warned of this and advised not to locate in these communities.

Upon receipt of notice of death of a member, a letter is sent to the widow warning her against hasty assigning of claims to collection agencies, advising that the "Physicians' Exchange" columns of the Journal are open to her without charge, and offering all services of the Society in any way they may be helpful. This offer is used in some manner or other by substantially all estates. A month later a second letter is sent soliciting papers and material of historical value which will be used by the Committee on Medical History and preserved at the State Historical Museum.

WISCONSIN MEDICAL JOURNAL

All scientific articles intended for publication in the Wisconsin Medical Journal are sent to the secretary-managing editor. These are acknowledged, listed, and forwarded to the medical editor for approval or rejection. If rejected, the article is returned to the author by headquarters office with a personal letter giving the reason for rejection. If accepted, the office notifies the author to that effect and the probable date of publication. The article is then referred to Miss Cridland who edits it for spelling, punctuation, and elimination of all except standard abbreviations, verifies the references, and checks that the copy in all ways corresponds to that format which the Journal requires. The article is then edited by the secretary for the writing or rewriting of the proper heads and subheads and determination of the size and number of cuts.

Subsequently the article is scheduled, and scientific articles in sufficient number for the size of the Journal are sent to the printer on August 30, for instance, for the October issue. When proof is received from the printer it is read by Miss Ripley and Miss Cridland. Corrections are noted and a copy forwarded at once to the author together with an estimate of the cost of the reprints, based upon computation as to length. The author's corrections are then added to those noted in the office, and proof is returned to the printer for correction. When the second proof is received from the printer it is checked to see that corrections have been made and that the new type lines have no errors, that they have been inserted in the proper place, and that in so doing the printer has not "dropped" or lost any lines. A few corrections are generally necessary and the proof is returned to the printer for the third time. Corrected proof is then checked for final accuracy and held for arrangement of the "dummy."

The previous month's copy of the Journal is then taken by Miss Stolp who pastes in proper position the new advertising and the change of copy of old advertisers, and who designates what advertising copy is to appear in the new Journal in the same form as the last issue. This necessitates careful checking with advertisers' instructions, which, if not followed, may result in loss of revenue if not cancellation of contract. All advertising contracts are handled by Miss Stolp, although proofreading, similar to that specified for scientific articles, is done by Miss Ripley and Miss Cridland.

The solicitation of new advertising is handled by both Mr. Larson and the secretary, who watch journals of other states, the Journal of the American Medical Association, and like publications for suggestions or "leads." This solicitation of advertising is continuous and every week one or more letters with supportive data are written in an effort to increase the revenue of the Journal from this source.

The dummy, with advertising properly inserted, is then given to Miss Cridland who completes the dummy by pasting in the proof of articles, cuts, editorials, and other material according to the schedule of order laid out by the secretary. Skill is required to the end that in this "lay-out," attention is given to typographical attractiveness. The dummy, complete in every detail, is given to the printer on the last day of the month with an order for the number to be run. Since an over-run is unnecessary and expensive, the number of advertisers, subscribers, and members must be checked constantly. In order to publish the Journal most economically its total number of pages, minus the cover, should be divisible by thirty-two or by sixteen. An additional eight pages over such a total

is more expensive, and most expensive is the adding of four pages.

On the fourth of the month page proof of the Journal is received. This must be checked with the dummy to see that pages are numbered properly, that the advertising is set up properly, and that in transferring the type from galley to page forms no lines have been dropped. After this checking has been completed the page proof, as corrected, is returned to the printer. At the time the corrected page proof is returned, the printer delivers 2,800 envelopes for addressing. The printing company then places the Journals in the addressed envelopes, and they are put into the mail on the tenth of the month.

In conformity with the laws governing copyrights, it is necessary that we send each month two copies of the Journal together with an application card for copyright to the Register of Copyrights in Washington, D. C. These Journals are sent on the tenth of the month. At the same time statements are sent to those advertisers whose contracts are not handled through the Co-operative Medical Bureau, and any orders which authors have sent in for reprints are sent to the printer.

Referring to the Journal, we find, following the scientific articles, the editorials, the president's page, county news items, society proceedings, news items and personals, births, marriages, deaths, society records, and the "Journal Bookshelf." With the exception of the president's page and those editorials which are written by members, this material is all prepared in the headquarters office. Proofreading is handled by Miss Ripley and Miss Cridland as for the scientific articles.

It has been the policy of the Journal to secure its editorials from representative physicians throughout the State, and periodically the secretary writes to various physicians requesting editorials. The physician may select his own subject, or the secretary may suggest one that seems timely. Other editorials are received unsolicited or are prepared in the headquarters office on subjects which should be brought to the attention of the members.

The president's page is prepared by the president on any subject of his choice. Copy of this is received in the headquarters office by the twentieth of the month and is then sent to the printer in the usual manner.

The material for the county news items (meetings of the Woman's Auxiliary), society proceedings (meetings of component and other societies), news items and personals, births, marriages, and deaths may come into the headquarters office either through the service of the Wisconsin Clipping Bureau or through correspondence. The Wisconsin Clipping Bureau furnishes each day numerous clippings from newspapers throughout the State. Other items are received from members, officers of medical societies, and also from the press and publicity chairman of the Woman's Auxiliary. These items are rewritten and prepared for publication by Miss Brandt and Miss Stolp and are sent to the printer about the twentieth of each month.

The society records, which include records of new members and changes in address, are prepared by Miss Ripley as the membership record changes from month to month.

The "Journal Bookshelf" contains a list of books received from publishers for review and book reviews. On the twentieth of the month all books that have been received from publishers during the month are listed and are sent to Dr. W. S. Middleton, dean of the Medical School of the University of Wisconsin. There they are distributed for review by members of the teaching staff. When the reviews are returned to the headquarters office they are sent to the printer to be set up in type for the bookshelf.

In conclusion, prior to the Depression, the Journal was one of two state journals which upheld the advertising standards of the American Medical Association and was self-supporting on the basis of advertising revenue. Loss of advertising during the Depression necessitated a peak annual appropriation from the general budget of the Society of $3,000 annually. The present appropriation for this purpose is $2,100 and this will be further reduced to $1,800 for 1938. This is a publication cost per member of but 75 cents, which is the lowest of any state journal. It is anticipated that the Journal may be made self-supporting, despite continuous improvement in size, cuts, and format, within the next four to five years.

CLIPPING SERVICE

Each morning the clipping service of the Wisconsin Press Association delivers a packet of from fifty to a hundred clippings from Wisconsin daily and weekly papers on subjects touching upon medicine and its practice. Material savoring of quackery, including advertising, is filed in the investigation files of the Society, and material that relates to the activities of Wisconsin physicians is used as the basis for news items and personals in the Wisconsin Medical Journal. Material relating to sickness insurance, medical economics, and like subjects is referred to the assistant secretary and subsequently that of seeming importance, to the secretary. Material indicating illegal practice, or what might be illegal practice, is referred at once to Mr. Walter Drews, investigator for the State Board of Health.

FILES

Investigation. — Over many years the secretary has collected information on physicians in the State from such sources as newspaper clippings, legal actions, State Board of Health, and reports of officers of component county societies. Detailed information is maintained also in the investigation file on the activities of chiropractors, osteopaths, optometrists, and others who treat, or attempt to treat, the sick. This file, which is referred to almost daily, is used (1) to check each applicant for mem-

bership to determine if there is any reason why he should not be admitted to membership in the State Society, and (2) to answer inquiries from officers of county medical societies, State officials, and others.

Subject. — Requests for information are of such character that it has been found advisable to maintain the files according to subject matter. With the information arranged in this manner it is possible to answer questions on a wide variety of subjects with the least possible delay. The material available has been accumulated over many years and represents one of the most valuable physical assets in the central office.

Since there is information on upward of 1,200 different subjects, it would be impossible to list each subject, but the following will give some indication of the material to be found: Abortions, antivivisection, Woman's Auxiliary, Basic Science Act, cancer, seventy-five files on collection agencies, crippled children, use of title "doctor," medicinal liquors, liquor laws, narcotic laws, pensions, paternity by blood, marriage laws, maternal mortality, poor relief laws, legal opinions, sickness insurance, and hundreds of like subjects.

An excellent example of the variety of information that has been collected on one subject is that on the subject of sickness insurance. Under this one title, out of a total of 1,200, there are 171 subdivisions. Samples of folders to be found under this subject are: American Medical Association's position on, American College of Surgeons, chiropractors' position on, cooperatives, cooperatives—Polk County Hospital, Filene's 20th Century Fund, Home Owners' Loan Corporation, Medical Cooperative League, Milbank Fund, mortality records, patent medicines, Resettlement Administration, Ross-Loos Clinic, and statistics.

PRESS

The Society distributes every week to daily and weekly newspapers in Wisconsin a news story on some health subject, and this material is widely used by the newspapers of the State. These releases give the public factual information on the body in health and disease, and constant care is exercised in preparing this material to show the value of preventive medicine and the role of the family physician in the protection of the health. Prepared jointly by Mr. Larson and Miss Brandt, these releases consist of from one to two pages of typewritten material each week. After the material has been mimeographed in the office, it is delivered to the Wisconsin Press Association for distribution to the newspapers.

RADIO

The Society presents three fifteen-minute radio programs each week. Scheduled originally over station WHA (Madison), they are subsequently broadcast over WHBY (Green Bay) and WEAU (Eau Claire). This material for the most part, is prepared jointly by Mr. Larson and Miss Brandt in the office of the State Society. Every fifteen-minute radio program necessitates the writing of an eight to ten-page manuscript, a total each week of approximately twenty-five to thirty pages of material.

By recording the material on sixteen-inch discs that may be replayed as many as twenty-five to thirty times, it is possible to make these broadcasts available to other radio stations besides WHA in Madison. It is necessary to record these programs during the hours when the radio station is off the air, and Mr. Larson devotes two evenings of each week to this work. In preparing the records for distribution to WHBY and WEAU, Miss Wichern replays each record to be sure that the recording is undamaged and clear. Appropriate station announcements are also prepared and attached to each record. The records are then packed in special containers and shipped to the radio stations.

The Society has in the central office a file of radio material on approximately 1,200 different subjects.

MEDICAL LIBRARY SERVICE

One of the outstanding services which has been rendered by the office of the State Medical Society is the inauguration of the Medical Library Service. Individual practitioners who do not have the time and the facilities to collect and maintain a library of their own may avail themselves of the services of the library and secure a loan packet on any medical subject which may be of interest to them.

This service to the membership has been made possible by referring to the Medical Library Service the medical journals received from other state societies and, also, the books which are received for review by the Wisconsin Medical Journal. In this manner the most recent publications, whether periodicals or scientific books, are made available to members of the Society by addressing their requests direct to the Medical Library Service. A reciprocal arrangement is entered into with other state medical journals whereby the Wisconsin Medical Journal receives in exchange for subscriptions to its Journal, subscriptions to thirty-eight state medical journals and twenty-three special journals.

The exchange journals are first read by the secretary and the assistant secretary for possible Society interest and then are forwarded to the library. The books received for review are recorded in the Society's office and sent to Doctor Middleton, as described in the paragraph on the "Journal Bookshelf." After they have been reviewed by some member of the teaching staff of the Medical School, they are placed in the hands of Miss Ramsey, librarian for the Medical Library Service.

The extent to which this service is used is shown by the number of requests for information which were received last year, there being a total of 5,122 requests and a total of 13,815 separate loan packets. This represents more than twice the number of requests made upon the packet library service of the American Medical Association which serves the entire membership of the Association throughout the United States.

LEGAL SERVICE

Hardly a day passes but that some question arises concerning the law as it affects the State Medical Society, a component society in discharge of its official functions, or a member as affects the practice of medicine.

The Society, as one of its distinctive and outstanding services, for years has offered to answer for the membership any question that broadly relates to the practice of medicine. Thus the Society will not answer a question as to whether a certain member is entitled to deduct a given amount for postgraduate education on his income tax return, but will answer the broad question of whether expense of postgraduate education is or is not a deductible item. On the average, the answer to one out of every six inquiries suggests a problem that should be solved to benefit the entire membership, or indicates information that should be given the entire membership that all may profit thereby.

Legal questions that are answered run a gamut of subjects, but may be typified by such subjects as (1) the ownership of x-ray films; (2) collection of fees for local examinations under the General Hospital law; (3) regulations pertaining to state and federal narcotic laws and regulations; (4) laws and rulings relating to medical service for the indigent; (5) accounts preferred in the law; (6) analysis of collection agency contracts, and so forth. Material thus accumulated is carefully filed in the subject files, discussed elsewhere, that it may be available for subsequent correspondence.

Legal questions affecting the organization constantly occur. A host of such questions arose, for instance, in preparing the recent bulletin to the members concerning the interpretation of the new Thomson prenuptial examination law. Other examples follow:

> The American Medical Association has an exhibit on nostrums in the Hall of Health. Should an exposé result in a suit, what are the liabilities of the State Medical Society and what proper steps may be taken in advance to protect the Society?
>
> When a county society has under discussion the expulsion of a member, how shall charges be drawn which will not be open to reversal for error upon appeal?
>
> In what form should a county society make a contract for care of the indigent under the state charter law and the empowering amendment adopted in 1935?

As a matter of great service to the membership, each year legal counsel revises the summary of laws and regulations relating to the filing of both state and federal income tax returns, having in mind those sections that peculiarly affect physicians by reason of the professional nature of their work. Numerous voluntary letters in the office indicate that this service alone has saved many a member more than his annual dues in perpetuity. Once every two years, if required, a revised pamphlet is published relating to poor relief laws and medical service thereunder.

In summary, it may be said that legal questions arise almost daily requiring conference with counsel, frequently of some hours' duration. Such legal service is essential to the conduct of the Society and constitutes a valuable service to the general membership.

BULLETINS TO MEMBERS

On occasion, as the importance of the subject matter and its urgency dictates, the headquarters office prepares and mails bulletins to the entire membership. During a legislative session from eight to twelve bulletins are issued in a period of six months. In addition, from four to eight bulletins are sent to the general membership each year on other material.

Examples of such bulletins are recent ones on such subjects as the poor relief laws of the State indexed as to requirements to be met and facilities available in the furnishing of medical service; an important opinion of the attorney general on the status of families on W. P. A. as concerns emergency and other medical care; a questionnaire of the newly created Council on Scientific Work; bulletins on the annual meeting; and one on a physician's duties and responsibilities under the Thomson prenuptial law.

Experience has taught that if the subject is of sufficient importance for the Society to issue a bulletin, to be read it must be sent by first-class mail, and only on rare occasions is exception made to this policy. The mailing cost of a bulletin (one sheet) to the membership is approximately $75, and printing costs average between $25 and $50 except for pamphlets. The copy for a bulletin is prepared by the secretary or legal counsel, sent to the printer marked for style, and proofread by Miss Ripley or Miss Cridland. The envelopes (2,400) are then addressed in the office and the bulletins are inserted and mailed by the printer.

COMMITTEES AND COUNCIL

The Council of the Society holds a one-day session in January each year, generally a second one in June, followed by an all-day session preceding the first meeting of the House of Delegates and another following each subsequent meeting of the House (a provision of the constitution). In the interim between sessions of the Council an Executive Committee (composed of the chairman of the Council, president, secretary, treasurer, and two councilors) meets at irregular intervals upon call of the chairman. The Executive Committee transacts no business as such, but it hears in detail pending questions and if the matter is urgent, reports to the Council a summarization of its findings and recommendations that the Council in turn may act by mail ballot. More frequently, however, questions before the Executive Committee are submitted by the secretary that he may have their advice prior to acting in his own official capacity.

The Council appoints certain committees that are

continuous as to duties but not as to personnel. Such committees are those on reviewing the annual audits of the secretary's and treasurer's accounts as well as that of the Wisconsin Medical Journal. Another is one that acts in an advisory capacity to officers of the Woman's Auxiliary.

Special committees appointed by the Council are for the review of problems submitted to the Council and are special in their nature in that their existence is generally for a period of a year or less. These committees include one on cardiac conditions in crippled children, problems of crippled children other than those of a cardiac nature, goiter, an advisory committee to the Wisconsin Interscholastic Athletic Association, and finally, an advisory committee, to a state department, on visual and hearing defects.

Standing committees of the Society are those specified in the By-Laws, including (1) Public Policy, (2) Editorial Board, (3) Medical Defense, (4) Health and Public Instruction, (5) Medical Education and Hospitals, (6) Medical Economics, (7) Council on Scientific Work, (8) Necrology, (9) Cancer, (10) Office Procedure, and (11) Coordination of Medical Services. The president also appoints such additional committees as he thinks necessary to handle special problems during his year in office. Such committees in the past have included those on (1) Coordination of Medical Services (Wisconsin General Hospital problems), (2) Medical Care of Veterans, (3) Medical History, (4) Mental Hygiene and Institutional Care, (5) Commitment of the Insane, and (6) Child and Maternal Health and Protection. The House of Delegates created a special committee a year ago on Office Procedure.

It will be obvious that if the work of committees is to have a unity of program, the committees must function through the headquarters office. To that end either the secretary or the assistant secretary is in attendance upon each committee meeting. Committees have no resources of their own in the sense of stenographic aid, legal counsel, and so forth, consequently all work outlined by the committees is done through the headquarters office. This includes minutes of meetings, research material, records, calls for meetings, and final reports, and since it may be said that substantially all committees of the Society are in continuous activity, this work requires continuous effort on the part of the staff. Orders of business for Council meetings, minutes, and research material for the Council are also compiled through the headquarters office. Minutes are subsequently published as fully as possible in the Wisconsin Medical Journal.

In this statement of the activities of the staff there should be no misunderstanding as to the projects of the committees, as in these the staff does not participate except as the secretary or his assistant may be called upon for information. The work of the committees and the Council and their conclusions are the result of deliberation by the members of such respective bodies.

POSTGRADUATE MEDICAL EDUCATION

For the last several years postgraduate medical education has been made available to all members of the Society in their own districts. In 1936 and 1937 this activity was accentuated through the availability of Social Security funds for this purpose. Through the cooperation of the Crippled Children Division of the Department of Public Instruction and the Bureau of Child Welfare of the State Board of Health, postgraduate courses on obstetrics and gynecology and orthopedics were presented in each councilor district of the Society. The secretary's office has and will continue to assist both departments in the details essential to this work.

CANCER—WOMEN'S FIELD ARMY

The American Society for the Control of Cancer announced in the fall of 1936 its plans for the establishment of an organization composed of women to assist in the dissemination of information on cancer and to solicit funds for education of the laity on this subject. The Committee on Cancer of the State Society was designated as the executive committee of this organization. With this assignment the Committee on Cancer recognized at once that its work would be increased tremendously and asked for clerical and stenographic assistance from the secretary's office. At the January meeting of the Council the secretary asked permission to extend this assistance to the Women's Field Army for its initial campaign. This request the Council granted.

Preliminary to the opening of the campaign, the Cancer Committee organized a speakers' bureau to provide speakers to discuss cancer before lay groups arranged by officers of the Women's Field Army. This necessitated the writing of personal letters to secretaries of the component county medical societies throughout the State, as well as many follow-up letters to secure a list of representative members of the Society throughout the State who would be willing to cooperate with the committee in presenting this material through the speakers' bureau.

The committee also published 800 copies of a mimeographed model public address on cancer and distributed this, together with printed pamphlets, to all those included in the speakers' bureau.

The secretary's office also handled the distribution of literature, posters, membership certificates, buttons, and stickers to the women in the State who were to carry on the active solicitation of funds. This assignment alone required the full time of one of the staff for a period of two months and special help to assist her. Other members of the staff assisted periodically in the assembling and mailing of the material. A conception of the magnitude of the task is best demonstrated by the quantity of material which was mailed from the office during this rush period. At least 142,500 pieces of literature, letters, bulletins, pamphlets, and handbooks were addressed and mailed by the staff, and for a period of ten days it was necessary to engage

the services of a truck to call at the headquarters office each afternoon to haul the packages and letters to the post office.

During the campaign the secretary's office sent projection lanters, film strips, and manuscripts to speakers who desired to use this equipment in making their presentations before public gatherings. Since the Society had only six lanterns, it was necessary to rent lanterns in an effort to meet the demand. All lanterns, including the rented ones, were in continuous use for eight weeks. Some speakers failed to return the equipment as scheduled, and much time-consuming effort was required to trace the machines, secure their return to the office, and maintain the schedule of shipment so that the lanterns would be in the hands of the speakers at the promised time. It was necessary to inspect each lantern before it was sent out to a speaker, replace defective bulbs, and check the film for damage.

Following the campaign the committee decided to distribute a pamphlet on cancer to each person who contributed during the drive of the Women's Field Army, and approximately 8,000 pamphlets were mailed to subscribers.

This activity of the Committee on Cancer has placed a heavy drain on the personnel of the office. The actual supervision of this work has been under the direction of Mr. Larson who has devoted much time and effort to the end that the campaign might be a successful one. The Council of the Society and the Committee on Cancer have felt that this expenditure of time and effort has been a judicious one. Through the work of the Committee and the secretary's office it has been possible to supervise the activities of the organization to make certain that the information disseminated by them would be reliable, factual, and authentic. The Women's Field Army collected over $10,000 during enlistment week and in the future will be able to finance its own personnel, but the secretary recommends continued supervision of the organization by members of the Society's staff, under the direction of the Committee on Cancer.

HYGEIA

Each year the Council appropriates approximately $250 for the purchase of subscriptions of Hygeia for persons who hold offices of public trust in Wisconsin. These subscriptions to Hygeia are given at Christmas time and are accompanied by a personal letter from the secretary. This necessitates the writing of from 150 to 175 letters, checking and revising the mailing list, and preparation of the order for the American Medical Association.

TRAVEL

With fifty-two component county medical societies, thirteen district societies, and invitations to address innumerable other groups as well as the necessity for attendance upon all committee meetings, it is absolutely impossible for the secretary and his assistant, Mr. Larson, to accept all of the invitations that are received.

Committee sessions are generally held on a Sunday, as the most convenient day for the physician members. Not infrequently two committees will meet on a given Sunday,—one in the morning and one in the afternoon. On the average, the secretary devotes forty Sundays a year to committee sessions. Half of such meetings are held in Milwaukee, as the railroad center of the State.

Only in non-legislative years does the secretary attend the annual meeting of the American Medical Association. Each year, however, he attends the annual two-day conference in Chicago of secretaries and editors of the constituent state medical associations. He also visits the headquarters office of the American Medical Association on business with officers and departmental heads on an average of once every eight to ten weeks. He attends each year, as routine, the annual meeting of the Wisconsin Hospital Association. Two to four meetings of the Council are held each year and in addition from four to eight meetings of the executive committee.

In selecting points to visit in the State, the secretary is guided in part by how recently he has visited within that section, other engagements, amount of travel scheduled within the month and like factors. Obviously, a secretary, to discharge his duties efficiently, cannot remain at his desk. It is equally mandatory that he not travel to such an extent as to hamper projects of importance then pending. A list of the visits of the secretary for the past year will be found in the August issue of the Wisconsin Medical Journal on page 654.

The Council allowed, some years ago, an expense for travel of ten cents a mile when by car. Actually the expense of travel by car is reported on the basis of rail fare where no time is saved by such automobile travel. On long trips by car (when more than one visit is made on a single trip) the secretary reports his mileage at five cents a mile. When shorter trips are made by car at a material saving in time to the Society, mileage is entered at seven cents a mile. No mileage is reported at a rate higher than seven cents, which covers all expense except hotel and meals.

The major portion of travel for the secretary occurs during non-legislative years. During such years days consumed away from the office in attendance upon meetings, committee sessions, and so forth, will average between forty-five and sixty.

ANNUAL MEETING

The time and effort which is devoted to the annual meeting is second only to that given to legislative matters. Immediately following the annual meeting each year, preparations start for the one to follow. It is necessary to make arrangements a year in advance for hotel accommodations for Society functions (meetings of the House of Delegates and Council, round-table luncheons, and banquets)

and meeting and exhibit halls, so that the meeting of the Society will not conflict with meetings of other state and national associations and to eliminate conflicts with other conventions within the meeting city itself.

In March invitations are extended to firms who manufacture or distribute products to the medical profession, to exhibit with the Society. In preparation for the 1937 meeting, 169 personally-typed letters were addressed to executives of firms throughout the United States inviting them to reserve space in the technical exhibit section. Each year there has been an increase in the size of the technical exhibit section, and within ten days following the issuance of the invitations all available space is reserved either by telegram or long distance telephone calls. When all the space has been reserved the special requirements for each booth are noted and arrangements are made with the management of the meeting hall to provide the exhibitors with the facilities required by them. Signs for the booths must be prepared for each exhibitor and the designated number of electrical outlets supplied. During the time the exhibits are being erected and also during the meeting, a special employee is on duty in the exhibit hall to fill any final demands made by the exhibitors.

The cost of the exhibit space is payable in two installments, one payment being due as soon the booth is reserved in March and the second installment at the time the meeting opens. All letters of collection originate in and are mailed from the secretary's office. During the last fifteen years 100 per cent of the accounts of exhibitors have been collected.

Every effort is made to provide exhibitors with all possible service to the end that they will return in subsequent years to exhibit at the annual meeting. The income from the exhibitors in the technical section defrays two thirds of the expense of the annual meeting. If these exhibits were not secured, the budget of the Society would be assessed $3,035 more for the meeting. From $1,500 to $1,800 are allocated to the expenses of the annual meeting from the funds received from membership dues. The appropriation from the membership funds is in addition to the income from exhibitors.

The scientific program, while prepared by the Council on Scientific Work, requires a great deal of time by the office staff. As soon as the program is received in the office, it is carefully checked to determine if those appearing on the program are members of the Society or, in the case of out-of-state speakers, if they are members of their state medical society. The names are carefully edited for spelling, initials, and titles. The timing of the program is studied and rearranged to coincide with other functions of the Society such as meetings of the House of Delegates, special luncheons, annual dinner, and special demonstrations. When the program has been revised a personal letter is written to each physician appearing on the program, advising him of the day and hour he is to appear, the time allotted to him, and the number of typewritten pages that will be required to fill the scheduled time. Subsequently a letter is written to each speaker asking if he has any special requirements such as motion picture projectors, blackboards, and lantern slide machines. When the replies to this letter are received, the order is entered for equipment, and operators are employed and scheduled. Another letter is addressed to the speakers requesting information as to their hotel requirements and reservations, and finally a letter is directed to all speakers just before the meeting asking that they prepare for the Society a brief summary of their paper that may be used by the secretary for release to the local papers and to the two newspaper services, the Associated Press and the United Press. It is necessary to prepare these releases for the newspapers, as reporting scientific meetings is difficult even for the trained medical reporter, and the material presented may otherwise in many instances be distorted.

The round-table luncheons have proved to be a popular feature of the meeting, and in the preparation of the scientific program for this year the Council on Scientific Work has arranged for two days of luncheons. So much depends on the discussion leader for the effective conduct of these luncheons that it is necessary for each discussion leader to be appraised of the nature, aims, and intent of the luncheons. For this reason a personal letter is sent to each discussion leader outlining in detail the modus operandi of the luncheons and the necessity of keeping the discussion informal and giving each in attendance an opportunity to participate. A special bulletin is issued to the entire membership, and reservations for the luncheons are made through the central office. The number of reservations is limited to twenty, and if the luncheon which the member has designated as his first choice has been filled, his second and third preferences are checked to determine if it is possible to accommodate him in one of the other luncheons he has chosen. The member's reservation is acknowledged by a personal letter and his remittance deposited. A list of those who have made reservations is then prepared and placed in the hands of the guard at each luncheon room so that only those who have made reservations may enter.

The proceedings of the previous sessions of the House of Delegates must be read carefully, and all amendments to the Constitution and By-Laws, introduced at the preceding session, must be printed or officially transmitted to each member of the House. The order of business of the House must be prepared and provision made for the registration of delegates at each session. The secretary is required to secure from each committee chairman a resume of the committee's activities and its report, and this material must be edited and printed in the Journal prior to the meeting.

As secretary of the Council, the secretary of the Society must prepare the order of business. All questions referred to the Council must be included in the order of business and presented to the Coun-

cil for its consideration and determination. The Council is required, by the Constitution and By-Laws, to hold a meeting after each session of the House of Delegates. It is one of the duties of the secretary to be present at each meeting of the Council to act as secretary to that body and to place before it such matters as have been referred to the Council or are properly before that body.

Badges for the registration of members at the time of the annual meeting must be ordered well in advance so that the danger of back orders, inability to deliver, and unsatisfactory work is eliminated. Before the order is placed, bids are secured from several firms in an effort to secure the badges as economically as possible. The badges for the members of the House of Delegates and Council are prepared in advance with the name of each inserted.

The final program for the meeting is prepared for printing by the secretary, and after editing, correcting, and aranging the material, the order is placed for the printed programs which are distributed at the registration desk.

An outline of some of the numerous details which occur in connection with the meeting is shown below. This is only a partial list which has been taken from the memorandum sheet for the annual meeting.

Hire timekeeper for scientific sessions.
Guards at meeting doors.
Pages and guides.
Public address system.
Letter to section chairmen asking that they collect papers and leave at registration desk.
Arrange for dinner of House of Delegates on Tuesday evening.
Auxiliary programs and pictures.
Cuts of Milwaukee for Journal.
Typists at registration desk.
Typewriters at registration desk.
Signs for exhibit halls.
Letter to commercial exhibitors on shipping of exhibits to auditorium.
Girl to sell annual dinner tickets.
Exhibitors' requirements to auditorium manager.
Gloss print of Clendening and transparent woman for cuts.
Edit copy of material in special program—Hall of Health.
Motion picture machines and so forth in scientific sessions.
Auxiliary signs.
Auxiliary badges and registration cards.
Dinner music, annual dinner.
Dance orchestra for Thursday afternoon.
Insurance on exhibits.
Public liability insurance.

LEGISLATION

The Wisconsin Legislature is in session on an average of eight months out of every twenty-four, in other words, a third of the time. While the legislative effort of the Society is familiar to the members through articles, addresses, and bulletins, some broad considerations are mentioned here to complete the picture of the activities of the headquarters office.

When the legislature is not in session, from one to four and not infrequently six committees of the Society may be at work on problems, the solution of which ultimately calls for the drafting of bills for legislative consideration. In addition to the preparatory work of committees, subjects of possible legislative importance are continually coming to the attention of the secretary and legal counsel as a result of their routine work with the membership.

In general it may be said that no measure is presented to the legislature that has not first received the approval of the House of Delegates. Secondly, the House, over a period of two sessions, may approve of more measures than it is possible to present at a single legislative session without unnecessarily jeopardizing an entire program for failure adequately to explain each item. That this may not occur, by precedent the House has granted to the Committee on Public Policy the power to meet prior to a legislative session and make selections for the legislative program from those bills already approved by the House. Bills not submitted at one session are generally submitted at a subsequent session. The committee, in other words, may feel it wise to delay action but has no power to repeal action approved by the House.

Certain measures highly prejudicial to the conservation of the public health are introduced from without the profession session after session. In a given session it may be anticipated that there will be no less than fifteen such measures which must be defeated if there is not to be a major retrogression in public health. Such measures will include from one to four antivivisection bills, attempts to secure legislative recognition by wholly unqualified practitioners, or proposals to extend the powers of limited practitioners already licensed by the State for such limited practice. Each session there is an effort to repeal the Basic Science Law of 1925 or to secure such exemptions therefrom as would amount to its repeal.

In addition, in an average session there will be about 150 measures introduced from all sources which touch upon public health programs, existing and for the future. Each must be most carefully analyzed to determine its actual effect were it to become a law.

In order to discover what measures affect the delivery of medical service or the public health, it is essential to examine quickly each bill and resolution introduced. Out of an average of 1,500 to 1,800 bills so examined during each session, there will be about fifteen that are highly prejudicial to health progress in the State. Amendments will be suggested in committee hearing to about twenty-five measures, and about 110 will be placed on what might be termed a pending file. In other words, while the bills seem proper in present form, any amendment offered must be carefully scrutinized to

see that it does not bring in other changes that would not be acceptable from the public health viewpoint.

Each week of the session, the secretary, assistant secretary, and legal counsel attend from one to ten committee hearings at which notes are taken and, perhaps once or twice a week, an appearance is made for or against a bill. During a given legislative session from thirty to fifty committee appearances are made. If appearance on a bill is indicated, it is made by either the secretary or legal counsel. In the event that three hearings occur the same afternoon, which happens on occasion, the assistant secretary appears at one of them. When an appearance is to be made in the name of the Society, days of research, and on occasion even weeks of preparation, will precede the actual committee hearing. An effort is made to inform the legislative committee in the shortest possible length of time as to the exact effect of the passage of a measure.

By custom, based on experience, all presentations before committees are made by the secretary unless the technical nature of the bill may bring forth questions which he would be unable to answer. On measures of that type, the secretary will have present either an officer of the Society or a specialist in the field under consideration. For example, on a bill affecting the practice of oculists, an oculist was present to supplement the Secretary's statement from the purely technical side and to answer questions of the committee members. The position of the Society, as repeatedly approved by the House of Delegates, is that the Society is present to offer to committees of the legislature, pertinent and accurate information on a technical subject,—without which information the committee members might lack the basis upon which considered judgment could be made. No one, directly or indirectly, affords any entertainment to members of the legislature, and no one makes an effort to exert pressure or asks a member for his vote on any measure.

From time to time, during a session, bulletins are issued to the membership to provide them with accurate information on new measures considered to be of importance from a public health viewpoint and to report on the status of various measures that are of interest to the members. During a session supplementary information in the nature of recorded hearings or debate are reported in the Wisconsin Medical Journal.

The Society does not participate in elections or partisan politics, since it believes that measures designed to support and advance the public health deserve the support of men of all political faiths. Knowing the non-partisan nature of the Society's activities, its representatives are continually asked for information from all sources from the State Executive Office to departmental heads. This applies regardless of what political party may be in office at a given time.

THE BUDGET

By provision of the Constitution and By-Laws, the preliminary suggested budget for the year is first framed by the secretary and treasurer in the late fall. It is then submitted to the Executive Committee of the Council and subsequently to the Council itself for determination, item by item, at its January meeting.

The year 1938 will be a non-legislative year and based upon present staff and activities, present salaries, and including no new item of expenditure, the budget based upon past years is estimated as follows:

INCOME

Membership dues from 2,400 members at $15		$36,000
Interest on invested surplus of $15,000 (estimate)		500
Total income		$36,500

PROBABLE EXPENSE FOR 1938 BASED ON PAST BUDGETS

1. Salaries		
A. The secretary receives $1,200 a year from the Wisconsin Medical Journal which operates on a cost accounting separate basis. In addition, from the general fund he receives (since Jan. 1935)	$7,800	
B. George B. Larson, assistant secretary	2,700	
C. Stenographic—clerical assistants including Misses Stolp, Ripley, Cridland, Brandt, and Wichern and small honorarium for treasurer's accountant ($300)	7,800	
Total salaries		$18,300
2. Rent		1,140
3. Telephone (including long distance) and telegraph		600
4. Printed stationery, including officers		240
5. Office supplies of all types		800
6. Printing and mailing bulletins to members (not postage)		450
7. Postage, printing including pamphlets, membership certificates, annual meeting announcements and programs, badges, tickets and so forth		1,800
8. Fixtures and upkeep (files, typewriters, mimeograph)		600
9. Treasurer's banking expense		25
10. Extra help including stenotype operators for annual meeting		450
11. Petty cash		180
12. Books and periodicals including necessary publications on pertinent subjects for committee members and councilors		360
13. Special services such as public liability and fire insurance, bonds of secretary and treasurer, insurance against suits arising out of annual meeting exhibits, and so forth		360

14. Mailing weekly newspaper releases, preparing radio transcriptions and express to other stations	750
15. Wisconsin Medical Journal	1,800
16. Annual Meeting (over exhibit revenues)	1,500
17. Hygeia	250
18. R. R. expense three delegates San Francisco, American Medical Association	450
19. Legal counsel	1,200
20. President's travel expense	750
21. Council and committees (travel expense only plus luncheon at meetings)	1,500
22. Premium of $10,000 insurance policy on life of secretary—Society the beneficiary	250
23. Travel of secretary and assistant secretary	900
24. Secretaries Conference, Milwaukee, January	900
Total estimated budget	$35,555

It is to be noted that prior to the Depression the surplus account for general purposes was $25,000. Of this amount $5,000 was used at the time dues were temporarily reduced to $12, and $5,000 was appropriated and will be used for the emergency of the current year. Explanation of each item will be found in the material preceding this budget and in the reports published in the August issue of the Wisconsin Medical Journal.

Respectfully submitted,

J. G. CROWNHART,

Secretary.

Members, State Medical Society of Wisconsin*

Abbotsford:
Shields, G. G.

Ableman:
McGonigle, B. E.

Abrams:
Faulds, R. C.

Adams:
Harris, A. J.
Shapiro, Harry

Adell:
Bemis, Ira M.
Naylen, F. J.

Albany:
Blum, O. S.
Weissmiller, L. L.

Algoma:
Foshion, H. V.
Witcpalek, W. W.

Allenton:
Fisher, R. S.

Alma:
Bachhuber, Max

Almena:
Arneson, Thomas

Almond:
Meyer, M. W.

Amery:
Cornwall, W. B.
Ford, K. K.
Kremser, V. C.
Waterman, I. L.

Amherst:
Schroeder, C. F.

Antigo:
Bloor, E. G.
Curran, W. P.
Donohue, M. J.
Dorzeski, E. F.
Flatley, M. A.
Lambert, J. W.
McKenna, E. A.
Moore, G. E.
Portman, R. J.
Steffen, L. A.
Wright, J. C.
Zellmer, C. E.

Appleton:
Benton, J. L.
Bolton, E. L.
Brooks, E. H.
Carlson, G. W.
Dehne, W. O.
Frawley, W. J.
Gallaher, D. M.
Gloss, A. J.
Harrington, Wm. J.
Hegner, G. T.
Huberty, F. J.
Konz, S. A.
Krueger, E. N.
Landis, R. V.
MacLaren, J. B.
Marshall, V. F.
McBain, L. B.
McCarty, R. T.
McGrath, E. F.
Mielke, E. F.
Mills, N. P.
Neidhold, C. D.
Pardee, C. A.
Rector, A. E.
Reeve, J. S.
Ritchie, G. A.
Ryan, C. E.
Swanton, M. E.
Troxel, J. C.

Arcadia:
Comstock, Elizabeth
Dockendorff, B. C.
Palmer, J. A.
Skroch, J. P.
Weber, F. T.

Argyle:
Eurit, D. H.
Williams, W. B.

Ashland:
Dodd, J. M., Sr.
Grand, C. A.
Grigsby, R. O.
Kamm, A. X.
Lowe, J. W.
Prentice, J. W.
Smiles, C. J.
Tucker, W. J.
Weeks, F. D.
Young, M. L.

Athens:
Bachhuber, H. M.
Frick, Lewis

Augusta:
Moland, O. G.
Prill, H. F.

Baldwin:
Kunny, B.
Swenson, G. B.

Balsam Lake:
Meilicke, W. A.

Bangor:
Ruppenthal, K. P.
Ward, M. W.

Baraboo:
Cahoon, Roger
Edwards, A. C.
Farnsworth, A. L.
Fenton, R. L.
Huth, M. F.
Irwin, H. J.
Kelly, D. M.
Moon, J. F.
Tryon, F. E.
Vander Kamp, H.
Winslow, F. R.

Barron:
Coleman, H. M.
Post, C. C.
Ruethin, K. A.
Schlomovitz, H. H.
Smith, R. C.

Barton:
Driessel, S. J.

Bayfield:
Robertson, M. J.
Shumate, J. K.

Bear Creek:
Morneau, L. F.

Beaver Dam:
Corso, Xavier
Hammond, A. W.
Hough, A. G.
Hoyer, A. A.
Hoyer, G. H.
Kierzkowski, C. V.
O'Hora, C. M.
Roberts, Rob Roy
Rosenheimer, A. M.
Schoen, R. E.
Temkin, M. M.
Webb, E. P.
Welsch, J. M.

Belgium:
Huth, E. P.

Belleville:
Donlin, W. F.

Belmont:
Hubenthal, J. C.

Beloit:
Allen, J. P.
Allen, W. J.
Baldwin, R. M.
Brinckerhoff, F. E.
Brown, E. B.
Burger, H. E.
Crockett, W. W.
Crone, V. D.
Flarity, T. H.
Fosse, B. O.
Friend, L. J.
Friske, O. W.
Helm, H. M.
John, G. W.
Kasten, H. E.
Keithley, J. W.
Kishpaugh, H. W.
Leeson, F. W.
Lemmel, J. T.
Ottow, A. F.
Raube, H. A.
Shearer, H. A.
Shinnick, T. F.
Smith, C. E.
Thayer, F. A.
Thayer, R. A.
Vivian, R. S.
Wilson, R. F.

Benton:
Bent, X. Pearle
Leitzell, P. W.

Berlin:
Koch, H. C.
Scott, B. E.
Seward, L. J.
Wiesender, A. J.

Big Bend:
Boldt, R. E.

Birchwood:
Ainsworth, H. H.

Black Creek:
Laird, J. J.

Black River Falls:
Krohn, Irwin
Krohn, Robert
Mannis, Harry

Blair:
Richards, R. R.

Blanchardville:
Unterholzner, L. J.

Bloomer:
Clauson, C. T.
Fortner, W. H.
Hudek, D. F.

Bloomington:
Baldwin, F. H.
Glasier, M. B.
McLaughlin, H. J.

Blue Mounds
Bancroft, H. V.

Blue River:
Randall, M. W.

Bonduel:
Terlinden, J. H.

Boscobel:
Freymiller, E. F.
Hayman, C. S.
Spiegelberg, E. H.
Tuffley, F. S.

Brandon:
Hull, H. H.

Briggsville:
Boots, F. W.

* Complete up to December 1, 1937.

Brillion:
McComb, I. N.
Wagner, A. J.
Zietlow, F. G.

Brodhead:
Mitchell, E. J.
Ross, M. E.
Taylor, A. R.

Brownsville:
Raymond, R. G.
Ries, M. F.

Bruce:
Whalen, M. L.

Burlington:
Alcorn, M. W.
Bennett, J. F.
Mastalir, L. O.
Prouty, W. A.

Butternut:
Keyes, T. B.

Cadott:
Zenner, C. E.

Cambria:
Ronneburger, E. O.

Cambridge:
Amundson, K. K.
Bilstad, G. E.

Cameron:
Cronk, C. F.

Campbellsport:
Guenther, O. F.
Hoffmann, L. A.

Camp Douglas:
Cron, C. O.

Casco:
Fencil, Y. J.
Kerscher, E. J.

Cashton:
Cremer, C. H.
Mauel, N. M.

Cassville:
Blackbourn, F. E.

Cato:
Kelley, J. M.

Cazenovia:
Hanko, J. E.

Cedarburg:
Blanchard, P. B.
Hurth, O. J.
Katz, H. M.

Cedar Grove:
Van Altena, L. A.
Voskuil, A.

Centuria:
Noyes, G. B.

Chaseburg:
Remer, W. H.

Chetek:
Adams, R. W.
Hume, A. T.

Chilton:
Goggins, J. W.
Knauf, N. J.
Minahan, J. J.

Chippewa Falls:
Beier, A. L.
Daly, F. P.
Field, Merton
Hatleberg, C. B.
Henske, W. C.
Kelly, J. A.
McCarty, E. O.
McHugh, F. T.
Rodgers, R. S.
Sazama, F. B.
Schwartz, R.
Somers, A. J.
Williams, S. E.

Clear Lake:
Campbell, L. A.
Nelson, A. N.

Cleveland:
Reinert, E. N.

Clinton:
Parker, A. S.
Thomas, W. O.

Clintonville:
Auld, Irving
Finney, W. H.
Miller, E. A.
Murphy, J. H.

Cochrane:
Meili, Emmett A.

Colby:
Christofferson, H. H.
Schemmer, A. L.

Coleman:
Graner, L. H.

Colfax:
Cooper, C. A.
Felland, O. M.

Columbus:
Caldwell, H. M.
Frederick, A. J.
Mudroch, J. A.
Poser, E. M.
Schmeling, A. F.

Coon Valley:
Solberg, A. A.

Cornell:
Foster, J. H. A.

Crandon:
Hansen, L. B.
Ison, G. W.

Crivitz:
Szopinski, Aloysius

Cross Plains:
Froggatt, W. E. L.

Cuba City:
Donnell, J. E.

Cudahy:
Fine, J. M.
Krueger, B.
Lawler, E. M.
Partridge, C. D.
Smith, H. S.

Cumberland:
Lund, S. O.
Thompson, R. C.

Dale:
Archer, W. E.

Dallas:
Simonson, S. W.

Darlington:
McConnell, E. D.
McGreane, N. A.
Orton, Susanne
Quinn, R. B.
Shockley, H. O.

Deerfield:
Ingwell, C. L.

De Forest:
Bertrand, J. H.

Delafield:
Barnes, H. T.
Olsen, L. C. J.

Delavan:
Crowe, N. F.
Doughty, J. W.
Jacobson, T. L.
Kenney, H. J.
Klinger, George
Wright, C. A.

Denmark:
Hager, F. J.
Schilling, H. J.
Vosburgh, W. H.

De Pere:
Kersten, N. M.
Lenfestey, J. P.

De Soto:
Bolstad, H. A.

Dodgeville:
Hagerup, T. A.
Hamilton, W. P.
Morton, H. H.
Reese, William
Walker, H. M.

Dorchester:
Foley, F. P.

Dousman:
Schneider, Hans

Dresser Junction:
Foss, E. L.

Durand:
Buckley, R. A.
Schulberg, P. A.

Eagle:
Fitzgerald, J. J.
Schmidt, F. M.

Eagle River:
Flannery, J. V.
McMurry, O. R.
Oldfield, R. A. A.

East Ellsworth:
Campbell, A. P.

East Troy:
Meany, S. G.
O'Leary, T. J.

Eau Claire:
Anderson, F. G.
Baird, J. C.
Beebe, G. W.
Cook, F. S.
Derge, H. F.
Falstad, C. H.
Flynn, L. H.
Fuson, H. S.
Haag, A. F.
Hayes, E. P.
Henke, S. L.
Hoyme, G.
Johnson, Fred
Kinsman, F. C.
Kohl, Martha
LaBreck, F. A.
Manz, W. R.
Mason, E. L.
Midelfart, H. C. U.
Mitchell, R. E.
Paulson, W. O.
Russell, S. B.
Scullard, G.
Seemann, W. O.
Spelbring, P. G.
Stang, H. M.
Stoland, I.
Strand, Robert
Tanner, J. W.
Tupper, E. E.
Werner, Nels
Werner, R. F.
Ziegler, J. E. B.

Eden:
Hardgrove, J. H.

Edgar:
Schulz, H. A.

Edgerton:
Cleary, B. L.
Morrison, W. W.
Shearer, A. T.
Shearer, F. E.
Sumner, W. C.

Elcho:
Dailey, P. J.

Eldorado:
Jackson, F. A.

Elkhorn:
Bellerue, A. R.
Helmbrecht, M. G.
Sorenson, E. D.

Elmwood:
Breed, A. L.

Elroy:
Ferguson, F. H.
Vogel, C. A.
Vogel, C. C.

Ettrick:
Rogne, C. O.

Evansville:
Guilfoyle, J. P.
Gray, Rodney J.
Smith, C. M.

Fairchild:
Gibson, H. V.

Fall Creek:
Zboralski, F. F.

Fall River:
Hunt, F. O.

Fennimore:
Bailey, M. A.
Howell, E. C.
Marsden, T. H.

Fond du Lac:
Alexander, W. S.
Borsack, K. K.
Boyd, G. T.
Devine, H. A.
Devine, J. C.
Fetter, Mary
Finn, W. C.
Florin, A. C.
Folsom, W. H.
Gardner, L.
Gavin, S. E.
Helz, J. W.
Hutter, A. M.
Keenan, L. J.
Layton, O. M.
Leonard, C. W.
McCabe, P. G.
Meiklejohn, D. V.
Mills, R. G.
Pawsat, E. H.
Sharpe, H. R.
Sharpe, J. J.
Simon, L. J.
Smith, E. V.
Smith, E. V., Jr.
Theisen, S. A.
Twohig, D. J.
Twohig, H. E.
Twohig, J. E.
Waffle, R. L.
Waldschmidt, W. J.
Walters, D. N.
Werner, H. C.
Wier, J. S.
Wiley, F. S.
Wojta, W. C.
Yockey, J. C.

Footville:
Harvey, J. R.

Forest Junction:
Wollersheim, P. J.

Forestville:
Hirschboeck, J. G.

Ft. Atkinson:
Caswell, H. O.
Chase, Estelle S.
Gruesen, F. A.
Hanson, O. H.
Morris, R. C.
Venning, J. R.
Young, Will

Fountain City:
Reinhardt, J. P.
Skemp, F. C.

Fox Lake:
Elliott, E. S.

Franksville:
Dockery, G. A.

Frederic:
Andrews, W. C.
Arveson, R. G.
Davee, Chalmer

Friendship:
Treadwell, G. F.

Galesville:
Alvarez, R. L.
Jegi, H. A.
Younker, F. T.

Gays Mills:
Ackerman, E. T.
Lund, H. C.

Genesee Depot:
Jones, Griffith

Germantown:
Dehmel, R. A.

Gillett:
Baldwin, L. H.
Berg, W. R.

Gilman:
Hable, A. P.

Glenbeulah:
Hansen, John

Glenwood City:
McCusker, C. F.
McMahon, A. E.

Glidden:
Ansfield, F. J.

Goodman:
Kingsbury, C. H.

Grafton:
Balkwill, C. A.
Jochimsen, M. A.

Granton:
Overman, M. V.
Rath, R. R.
Wink, R. H.

Gratiot:
Banfield, C. P.

Green Bay:
Atkinson, H. S.
Bartran, W. H.
Brusky, A. H.
Buchanan, R. C.
Burdon, T. S.
Burns, Robert
Carter, R. M.
Charbonneau, A.
Chloupek, C. J.
Clifford, P. M.
Colignon, J. C.
Comee, W. C.
Cowles, R. L.
Crikelair, F. L.
Decker, W. J.
DelMarcelle, C. C.
Denys, G. F.
Dockry, P. F.
Ford, W. W.
Fuller, M. H.
Gosin, D. F.
Gosin, F. J.
Hagerty, W. T.
Halloin, J. E.
Hendrickson, H.
Icks, Karl
Jordan, E. M.
Kelly, W. W.
Killins, W. A.
Kispert, R. W.
Knox, E. S.
Kuehl, F. O.
Leaper, W. E.
Levitas, I. E.
McCarey, A. J.
McNevins, E. S.
Milson, Lewis
Minahan, P. R.
Mueller, W. E.
Nadeau, E. G.
Olmsted, A. O.
Quigley, L. D.
Robb, J. J.
Schmidt, E. S.
Senn, George
Shinners, G. M.
Smits, R. H.
Stauff, G. R.
Stiennon, O. A.
Tippet, W. P.
Troup, R. L.
Williamson, C. S.

Green Lake:
Baldwin, G. E.

Greenleaf:
Titel, E. A.

Greenwood:
Olson, Wm. A.

Gresham:
Litzen, F. L.

Hales Corners:
Johnson, A. W.
Pierce, D. F.
Wolf, R. C.

Hammond:
Olson, C. A.

Hancock:
Wild, J. P.

Hartford:
Hoffmann, J. G.
Lehmann, F. W.
Loughlin, T. F.
Monroe, M. E.
Sachse, F. W.

Hartland:
Grover, F. L.
Nixon, H. G. B.

Hawkins:
Baker, J. C.

Hawthorne:
Lookanoff, V. A.

Hayward:
Callaghan, D. H.
Dufour, E. H.
Krueger, E. R.
Rideout, M. E.

Hazel Green:
Fillbach, H. E.

Highland:
Erickson, M. T.

Hilbert:
Winkler, R. J.

Hillsboro:
MacKechnie, R. S.
Schneeberger, E. J.

Hixton:
Petzke, E. A.

Hollandale:
Marshall, S. B.

Holmen:
Hanson, L. E.

Horicon:
Hartridge, T. L.
Karsten, J. H.

Hortonville:
Towne, W. H.

Howards Grove:
Kolb, F. K.

Hudson:
Livingstone, J. W.
Newton, J. E.

Hustisford:
Panettl, P. A.

Independence:
Peterson, C. F.
Peterson, D. R.

Iola:
Wilker, W. F.

Iron River:
Johnson, F. G.

Jackson:
Froede, H. E.

Janesville:
Bartels, G. W.
Baumgartner, M. M.
Binnewies, F. C.
Clark, W. T.
Cunningham, M. A.
Danforth, H. C.
Farnsworth, F. B.
Farnsworth, R. W.
Fifield, G. W.
Frechette, F. M.
Freitag, S. A.
Gilbertsen, C. R.
Hartman, E. C.
Hartman, R. C.
Johnson, W. L.
Keiley, J. F.
Klein, Theodore
Koch, V. W.
Kuegle, F. H.
McGuire, W. H.
Metcalf, G. S.
Munn, W. A.
Nuzum, T. O.
Nuzum, T. W.
Overton, O. V.
Pember, A. H.
Snodgrass, T. J.
Stevens, J. V.
VanKirk, F. W.
Waufle, G. C.
Welch, F. B.

Jefferson:
Brewer, J. C.
Busse, A. A.
Garding, C. J.
Robinson, A. H.

Johnson Creek:
Wendt, F. A.

Junction City:
Reis, G. W.

Juneau:
Heath, H. J.
Hebenstreit, A. J.

Kaukauna:
Bachhuber, A. E. Jr.
Bachhuber, A. M.
Boyd, C. D.
Boyd, G. L.
Flanagan, G. J.
Hogan, John
Leigh, Albert

Kenosha:
Andre, E. F.
Ashley, T. W.
Bennett, W. H.
Binnie, Helen A.
Bowing, I. E.
Cleary, J. H.
Creswell, C. M.
DeFazio, S. F.
Gephart, C. H.
Good, Palmer W.
Graves, J. P.
Hastings, J. F.
Hill, B. S.
Lipman, W. H.
Lokvam, L. H.
Mayfield, A. L.
McCarthy, G. W.
Murphy, S. W.
Pechous, C. E.
Pifer, P. E.
Pirsch, Margaret V.
Randall, A. J.
Rauch, A. M.
Richards, C. G.
Ripley, H. M.
Rose, H. L.
Ruffolo, A. F.
Schlapik, A.
Schulte, G. C.
Schwartz, G. J.
Schwartz, H. L.
Sokow, Theodore
Stewart, W. C.
Swarthout, E. F.
Thompson, G. E.
Ulrich, C. F.
Windesheim, G.
Wolf, Herman

Kewaskum:
Edwards, R. G.
Hausmann, N. E.

Kewaunee:
Dana, D. B.
Dockry, L. E.
Wochos, F. J.
Wochos, W. M.

Kiel:
Knauf, F. P.
Nauth, D. F.
O'Donnell, S. P.

Kimberly:
Maes, C. G.

Kohler:
Cottingham, M. D.
Gascoigne, C. C.

La Crosse:
Anderson, N. P.
Bannen, W. E.
Bayley, W. E.
Callahan, J. L.
Carlsson, E. S.
Daley, D. M.
Douglas, F. A.
Eagan, R. L.
Egan, G. J.
Eidam, L. W.
Evans, J. A.
Flynn, R. E.
Fox, J. C.
Gallagher, E. E.
Garrett-Bangsberg, S.
Gatterdam, P. C.
Gray, R. H.
Gundersen, A.
Gundersen, Alf
Gundersen, G.
Gundersen, S. B.
Harman, J. C.
Henke, W. A.
Heraty, J. E.
Houck, Mary Piper
Jones, W. J.
Lueck, G. W.
Malin, G. W.
Mast, B. W.
McGarty, M. A.
McLoone J. E.
Moran, C. J.
Reay, G. R.
Rosholt, J. A.
Roth, J. A.
Simones, V. L.
Sivertson, M.
Skemp, A. A.
Skemp, G. E.
Smedal, E. A.
Smith, D. S.
Swarthout, Edyth C.
Townsend, E. H.
Wolf, F. H.
Wolf, H. E.

Ladysmith:
Lundmark, L. M.
O'Connor, W. F.
Smith, Woodruff

Lake Geneva:
Brady, C. J.
Hudson, E. D.
Jeffers, Dean
MacDonald, W. H.

Lake Mills:
Eck, G. E.
Engsberg, W. A.
Leicht, Phillip
Peterson, M. G.
Schoenecker, E. A.

Lancaster:
Doolittle, S. W.
Fowler, J. H.
Glynn, J. D.
Godfrey, R. C.
Houghton, E. M.

Laona:
Beech, R. H.
Ovitz, E. G.

Larsen:
Henrichsen, J. A.

LaValle:
Booher, J. A.

Lena:
Rose, J. F.

Little Chute:
Curtin, D. W.
Doyle, J. H.

Lodi:
Irwin, G. H.

Loganville:
Jewell, E. L.

Lone Rock:
Newlove, F. E.
Reynolds, Bertha

Loyal:
Ingersoll, B. P.

Luck:
Ries, T. O.

Luxemburg:
Jandrain, R. R.

Madison:
Aageson, C. W.
Atwood, David
Beatty, S. R.
Bell, Peter
Bleckwenn, W. J.
Bohorfoush, J. G.
Boner, A. J.
Bowman, F. F.
Boyce, S. R.
Briggs, S. J.
Brindley, B. I.
Britton, D. M.
Brown, E. J.
Bryan, A. W.
Buerki, R. C.
Bunting, C. H.
Burke, C. F.
Burke, Myra
Burns, R. E.
Caldwell, Ruth
Calvert, Charlotte
Campbell, R. E.
Carns, Marie L.
Carter, H. M.
Chorlog, J. K.
Cole, L. R.
Coluccy, M. J. J.
Cooksey, R. T.
Davis, F. A.
Dean, F. K.
Dean, J. C.
Dean, J. P.
Dean, Joseph
Dimond, W. B.
Duehr, P. A.
Edwards, A. C.
Ellis, I. G.
Elsom, J. C.
Evans, J. S.
Ewell, G. H.
Fauerbach, L.
Fisk, Charlotte
Gale, J. W.
Ganser, W. J.

Geist, F. D.
Gonce, J. E., Jr.
Greeley, H. P.
Greene, H. L.
Grumke, E. H.
Guilford, H. M.
Halperin, P. H.
Harper, C. A.
Harper, C. S.
Harris, J. W.
Henika, G. W.
Hill, N. A.
Hoffman, E. F.
Hurlbut, J. A.
Hyslop, V. B.
Jackson, A. S.
Jackson, J. A., Jr.
Jackson, R. H.
Jacobs, Lewis
Jerome, J. T.
Johnson, H. Curtis
Juster, E. M.
Kay, H. M.
Keck, E. B.
Kleinpell, W. C.
Krehl, W. H.
Kundert, F. W.
Kurtz, C. M.
Lacke, C. L.
Lee, J. H.
Lemmer, K. E.
Leonard, T. A., Jr.
Lewis, C. N.
Lindsay, W. T.
Littig, L. V.
Lorenz, W. F.
Maloof, G. J.
Marsden, W. H.
Marsh, H. E.
Masten, M. G.
McCormick, S. A.
McDonough, K. B.
McGary, Lester
McIntosh, R. L.
Meanwell, W. E.
Meyer, O. O.
Middleton, W. S.
Montgomery, R. C.
Morrison, R. C.
Mowry, W. A.
Neff, E. E.
Nelson, O. O.
Nesbit, M. E.
Nesbit, W. M.
Neupert, C. N.
Newman, Robert
Noer, R. J.
Oatway, W. H., Jr.
Pearson, C. R.
Pessin, S. B.
Pohle, E. A.
Puestow, K. L.
Purcell, H. E.
Quisling, A. A.
Quisling, G. D.
Quisling, R. A.
Quisling, Sverre
Reese, H. H.
Reineking, W. C.
Reznichek, C. G.
Rice, M. G.
Ritchie, Gorton
Robbins, J. H.
Rosenberg, C. F.
Schmidt, E. R.
Schneiders, E. F.
Schubert, C. K.
Schwittay, A. M.
Sevringhaus, E. L.
Sinaiko, A. A.
Sisk, I. R.
Sisk, J. N.
Smith, K. W.
Sprague, L. V.
Stebbins, G. G.
Stebbins, W. W.
Stehr, A. C.
Stiehm, R. H.
Stovall, W. D.
Sullivan, A. G.
Sullivan, E. S.
Supernaw, J. S.
Taylor, F. B.
Taylor, I. B.
Tenney, H. K.
Thomas, N. G.
Thornton, M. J.
Tormey, A. R.
Tormey, T. W.
Trautmann, M.
Van Riper, H. E.
Vingom, C. O.
Virgin, H. W.
Washburne, A. C.
Waters, R. M.
Wear, J. B.
Weiland, H. P.
Welke, E. G.
Werrell, W. A.
Weston, F. L.
Wheeler, R. M.
Williams, D. L.
Winn, H. N.
Wirig, M. H.
Wirka, H. W.

Manawa:
Irvine, R. K.
Irvine, W. J.

Manitowoc:
Aldridge, H. W.
Andrews, M. P.
Belson, H. J.
Bonner, N. A.
Donohue, W. E.
Erdmann, N. C.
Gregory, L. W.
Hammond, F. W.
Hammond, R. W.
Harris, C. F.
Hoffman, G. M.
MacCollum, C. L. R.
Meany, J. E.
Rauch, W. A.
Rees, T. H.
Scherping, W. H.
Schneck, Nathan
Shimek, A. J.
Sobush, L. D.
Steckbauer, J. W.
Strong, R. G.
Stueck, A. F.
Teitgen, Arthur
Teitgen, T. A.
Turgasen, F. E.
Wall, C. E.
Wilson, N. M.
Yost, R. G.

Marathon:
Barber, J. L.
Kampine, C. E.

Maribel:
May, J. H.

Marinette:
Berglund, S. A.
Bird, M. D.
Boren, C. H.
Boren, J. W.
Duer, G. R.
Jorgenson, H. L.
May, J. V.
Nadeau, A. T.
Pinegar, K. G.
Redelings, T. J.
Schroeder, H. F.
Shaw, R. W.

Marion:
Mulvaney, F. M.
Van Schaick, R. E.

Markesan:
Blewett, M. T.
Sinaiko, E. S.

Marshfield:
Baldwin, R. S.
Boeckmann, F. A.
Copps, L. A.
Deitchman, M. M.
Doege, K. H.
Doege, P. F.
Epstein, S. E.
Hipke, Wm.
McCormick, G. L.
Millard, A. L.
Potter, R. P.
Sexton, W. G.
Vedder, C. A.
Vedder, H. A.
Vedder, J. B.

Mattoon:
Partridge, O. F.

Mauston:
Hess, J. S.
Kaufman, A. R.
O'Brien, W. T.

Mayville:
Bachhuber, A. E., Sr.
Bachhuber, F. G.

Mazomanie:
Schultz, I.

Medford:
Elvis, E. B.
Norton, D. M.
Nystrum, L. E.
Nystrum, R. C.

Mellen:
Lockhart, C. W.

Melrose:
Lavine, I. H.

Menasha:
Corry, F. M.
Forkin, G. E.
Jensen, F. G.
O'Brien, P. T.
Pratt, G. N.
Schemanski, L. S.
Skibba, J. P.

Mendota:
Green, M. K.
Sauthoff, August

Menomonee Falls:
Burkhardt, E. W.
Domann, W. G.
Schloemer, A. J.

Menomonie:
Buckley, C. H.
Butler, F. E.
Grannis, I. V.
Halgren, J. A.
Long, D. T.
Lumsden, Wm.
Quilling, P. A.
Steves, B. J.

Mercer:
Kremers, A.

Merrill:
Austria, W. F.
Bayer, L. J.
Bayer, W. H.
Gebert, Walter
Hinckley, H. G.
Kelley, F. L.
Lane, F. C.
Morris, K. A.
Ravn, Bjarne
Ravn, E. O.

Middleton:
Allen, C. F.

Milltown:
Bergstrom, L. V.

Milton:
Crosley, G. E.
Davis, M. D.

Milton Junction:
Vogel, T. L.

Milwaukee:
Ackerman, J. S.
Ackermann, Wm.
Adamkiewicz, J. J.
Allebach, H. K. B.
Allen, L. L.
Altenhofen, A. R.
Ansfield, D. J.
Ansfield, M. J.
Augur, Alexander
Ausman, D. C.
Aylward, T. J.
Bach, E. C.
Bach, J. A.
Bach, M. J.
Bach, R. J.
Backus, E. A.
Baer, C. A.
Baker, V. L.
Baranowski, S. A.
Bardenwerper, H. E.
Barnes, J. S.
Barrock, J. J.
Barta, E. F.
Baugh, C. W.
Baum, E. L.
Baumann, A. J.
Baumgart, C. H.
Becker, C. J.
Beckman, Harry
Beebe, C. S.
Beffel, J. M., Jr.
Belknap, E. L.
Bellehumeur, C. E.
Benton, R. W.
Bentzein, E. W.
Bergen, R. D.
Bergner, O. L.
Bernhard, L. A.
Bernhart, E. L.
Bickel, W. H.
Bickler, E. P.
Biller, S. E.
Birk, B. J.
Blair, J. F.
Blount, W. P.
Blumenthal, R. W.
Bodden, A. M.
Boerner, R. W.
Bolger, J. Victor
Bork, A. L.
Borman, M. C.
Bornstein, S. L.
Bourne, N. Warren
Brah, A. J.
Brey, P. F.
Brizard, J. L.
Brook, J. J.
Brown, G. V. I.
Brown, S. V. I.
Bruins, Dirk
Brumbaugh, E. V.
Brunkhorst, R. O.
Bruns, D. H.
Brussock, W. A.
Brzezinski, E. A.
Budney, C. L.
Burbach, T. H.
Burgardt, G. F.
Bussewitz, M. A.
Byrnes, M. B.
Cahana, Stephen
Callan, P. L.
Cannon, H. J.
Carey, E. J.
Carhart, G. A.
Carl, E. E.
Carson, W. J.
Casper, W. T.
Cavaney, J. J.
Champney, R. D.
Chapman, V. A.
Churchill, Bernard P.
Clasen, E. A.
Cleary, E. M.
Cleveland, David
Coffey, C. J.
Coffey, S. E.
Conroy, C. F.
Conway, J. P.
Cook, E. F.
Cook, H. E.
Corcoran, C. J.
Cowan, I. I.
Cox, J. A.
Craite, E. J.
Cron, R. S.
Currer, P. M.
Curtin, J. G.
Cushing, Eleänore
Dalton, R. J.
Darling, F. E.
Darling, F. E., Jr.
Darling, W. S.
Davidoff, I. Z.
Davies, J. A.
Dearholt, H. E.
Decker, H. G.
Demeter, N. D.
de Neveu, A. V.
Derse, F. R.
Deysach, L. J.
Dieterle, J. O.
Differt, C. C.
Dishmaker, M. C.
Doerr, August
Dorpat, Louis
Drew, F. E.
Drexel, Arnold
Dries, Joseph
Dundon, J. R.
Dunker, G. O.
Dunn, C. F.
Durner, U. J.
Dvorak, H. J.
Eberbach, C. W.
Echols, C. M.
Edelman, Elsa
Egan, W. J.
Eisenberg, E.
Eisenberg, J. J.
Eisenberg, L. A.
Eisenberg, P. J.
Elconin, D. V.
Enright, J. A.
Enzer, Norbert
Epperson, P. S.
Epstein, Ely
Ernst, G. R.
Evans, C. A.
Evans, E. P.
Everts, E. L.
Fabric, B. L.
Fabry, Eleanora G.
Falk, V. S.
Farrell, F. R.
Farrell, H. J.
Fechter, F. J.
Federspiel, M. N.
Feldt, R. H.
Fellman, G. H.

Fernan-Nunez, M.
Festerling, E. G.
Fetherston, J. P.
Fidler, Charles
Flsher, Laura M.
Fitzgerald, G. F.
Fitzgerald, R. E.
Fitzgibbon, Wm.
Fletcher, E. A.
Foerster, H. R.
Foerster, O. H.
Foley, L. J.
Fons, J. W.
Ford, W. B.
Fortier, C. A. H.
Fox, G. W.
Fox, M. J.
Fox, Meyer S.
Franklin, E.
Franklin, I.
Frey, P. G.
Frisch, R. A.
Froelich, J. A.
Fromm, A. H.
Gabor, M. E.
Galasinski, R. E.
Garens, R. W.
Garland, J. G.
Garvey, J. L.
Gebhard, U. E.
Geiger, Sara G.
Gendlin, N. A.
Gertenbach, E. O.
Gilchrist, R. T.
Gilmer, L. T.
Gingrass, R. P.
Glisch, W. P.
Goldberg, Nathan
Goodsitt, A. H.
Gorder, A. C.
Gordon, J. S.
Grab, J. A.
Gramling, E. H.
Gramling, Frances
Gramling, H. J.
Gramling, J. J.
Gramling, J. J., Jr.
Gray, A. W.
Gray, W. K.
Greenberg, A. I.
Greenthal, R. M.
Griffith, J. C.
Grill, John
Grimm, J. J.
Grob, A. R. F.
Grosskopf, E. C.
Grossmann, E. E.
Grossmann, L. L.
Grotjan, W. F.
Grove, W. E.
Gudex, V. A.
Guerin, L. H.
Gunnerman, G. J.
Gute, E. B.
Guzzetta, Denis
Guzzetta, M. M.
Guzzetta, V. J.
Habbe, J. E.
Habeck, E. A. W.
Haberland, J. E.
Hackett, J. H.
Haessler, Bertha T.
Haessler, F. H.
Hagerman, F. H.
Hake, C. B.
Hall, R. M.
Hankwitz, A. W.
Hankwitz, P. G.
Hannen, P. H.
Hansen, A. C.
Hansen, H. T.
Hansen, J. W.
Hansmann, G. H.
Harder, Henry
Hardgrove, Maurice
Hardy, C. F.
Hargarten, L. J.
Harper, C. W.
Harrington, E. T.
Haug, J. F.
Haushalter, H. P.
Haushalter, L. E.
Hawkins, H. M.
Heeb, H. J.
Hefke, H. W.
Heidner, F. C.
Helfetz, E. C.
Heil, J. V.
Heise, H. A.
Henes, E., Jr.
Heraty, J. A.
Herner, W. L.
Herschensohn, H. L.
Hertel, A. J.
Higgins, S. G.
Hilger, W. A.
Hiller, R. I.
Hiller, S. J.
Hipke, G. A.
Hipke, L. W.
Hipke, M. M.
Hitz, H. B.
Hitz, J. B.
Hoermann, B. A.
Holbrook, A. A.
Holbrook, A. T.
Honenbeck, S. W.
Hood, A. J.
Horwitz, J. J.
Houghton, J. H.
Houghton, W. J.
Howard, T. J.
Hoyt, Geo. E.
Huber, H. H.
Hughes, J. R.
Hunkel, V. H.
Huston, John
Hyde, W. G.
Irwin, Robert
Jackson, Edward
Jacobson, E. B.
Jefferson, R. A.
Jekel, J. M.
Jenner, A. G.
Jenner, J. A.
Jermain, W. M.
Jobse, W. P.
Johnson, C. G.
Johnson, Frances
Johnson, H. W.
Johnston, T. L.
Joseph, W. A.
Judge, T. A.
Jurss, C. D.
Kahn, Joseph
Karr, J. K.
Kassowitz, K. E.
Kastner, A. L.
Kay, E. M.
Kearns, W. M.
Kelly, G. F.
Kennedy, W. R.
Kettelhut, E. J.
Kilian, A. D.
Kilkenny, G. S.
King, J. J.
King, J. M.
Kinsey, J. L.
Kissinger, C. A.
Kissling, A. C.
Klein, J. T.
Kleinboehl, J. W.
Kleis, W. J.
Klumb, M. G.
Knudson, A. H.
Koch, M. J.
Koehler, J. P.
Kohn, S. E.
Kovacs, Arthur
Kozina, F. J.
Kramoris, F. H.
Kretchmar, L. H.
Kretchmar, Morris
Kretlow, F. A.
Kristjanson, H. T.
Kritter, F. J.
Kriz-Hettwer, Rose
Krumbiegel, E. R.
Krygier, A. A.
Krygier, W. L.
Krzysko, S. L.
Kuhn, H. J.
Kuhn, M. J.
Kult, A. S.
Kusterman, A. F.
Lademan, O. E.
Ladewig, A. W.
Ladewig, H. C.
Lahmann, A. H.
Lambeck, F. J.
Lando, D. H., Jr.
Lang, V. F.
Langjahr, A. R.
Lawler, T. S.
LeCron, W. L.
Lee, P. A.
Leitch, G. W.
Lettenberger, J.
Levine, Abram
Lewis, Marian
Lieberman, Benj.
Liefert, W. C.
Light, George
Lillie, O. R.
Lobedan, E. T.
Long, C. W.
Lotz, Oscar
Loughlin, D. M.
MacInnis, Florence E.
MacKedon, W. L.
MacKenzie, J. A.
Mackoy, F. W.
MacRae, M. F.
Madison, F. W.
Madison, J. D.
Maercklein, O. W.
Malnekoff, B. J.
Malone, J. Y.
Margoles, F. C.
Markson, S. M.
Marlewski, C. R.
Marquardt, C. R.
Martens, E. W.
Martin, H. G.
Mason, E. W.
Matthews, J. B.
McBeath, N. E.
McCabe, John
McCann, Edith
McCormack, M. T.
McCormick, F. X.
McCormick, T. F.
McDonald, C. F.
McDonald, R. E.
McElligott, J. A.
McGovern, J. J.
McKillip, W. J.
McKittrick, N. W.
McMahon, F. B.
McMahon, H. O.
McMahon, J. P.
McNary, J. F.
McNaughton, W. T.
Megna, Salvatore
Mehigan, D. D.
Meloy, G. E.
Mendeloff, H.
Mensing, E. H.
Merten, A. N. E.
Merten, P. J.
Messmer, C.
Miller, E. W.
Miller, H. L.
Miner, H. B.
Mishoff, I. D.
Mitchell, S. R.
Mock, F. C.
Moglowsky, S.
Mollinger, S. M.
Molsberry, J. M.
Montgomery, A.
Montgomery, R. P.
Morgan, J. E.
Morgan, S. F.
Morter, C. W.
Morter, R. E.
Morton, S. A.
Muckerheide, A. J.
Mueller, G. F. C.
Mulsow, J. E.
Munkwitz, F. H.
Murphy, F. D.
Murphy, J. A.
Murphy, W. J.
Natenshon, A. L.
Nebel, Harold
Neilson, G. W.
Nelson, J. D.
Nelson, W. V.
Neville, Mary
Nichols, C. H.
Nichols, W. T.
Niland, P. J.
Nolte, L. G.
Nugent, A. C.
Oakland, H. G.
Oberbreckling P. E.
O'Hara, J. J.
O'Leary, E. B.
Olsen, A. H.
Olsen, Maurice
Olson, H. J.
Olson, R. E.
O'Malley, T. S.
O'Malley, W. P.
O'Neill, E. J.
Owen, J. D.
Ozonoff, J. B.
Pallasch, F. J.
Panetti, E. J.
Panetti, H. E.
Patek, A. J.
Paul, Francis
Paulbeck, T. M.
Pegram, J. W.
Perlson, P. H.
Peterman, M. G.
Peters, L. M.
Peyton, L. T.
Pfeffer, E. N.
Pfelfer, H. A.
Pfeil, R. C.
Pfisterer, F. W.
Piaskoski, R. G.
Pink, J. J.
Plahner, S.
Pleyte, A. A.
Polacheck, W. S.
Pollack, S. K.
Pope, C. B.
Popp, Albert
Powers, H. W.
Powers, J. W.
Prudowsky, H. H.
Pugh, G. J.
Purtell, R. F.
Quick, A. J.
Quick, E. W.
Ragan, W. F.
Raine, Forrester
Reich, W. F.
Reifenrath, I. B.
Reinke, C. C.
Rettig, F. E.
Reuter, M. J.
Reynolds, J. H.
Rheineck, A. F.
Ricciardi, I. J.
Rice, E. M.
Rich, G. J.
Riehl, F. W.
Rikkers, D. F.
Roberts, D. W.
Robinson, H. P.
Roby H. S.
Rock, J. N.
Roethke, R. W.
Rogers, A. F.
Rogers, E. H.
Rogers, M. F.
Rolfs, T. H.
Rosenbaum, M. K.
Rosenberger, A. I.
Rosenthal, S.
Ross, F. A.
Ruppenthal, A. J.
Ruschaupt, L. F.
Russell, R. J.
Ryan, E. R.
Ryan, W. A.
Sadoff, H. B.
Salinko, S. S.
Sander, O. A.
Sargent, J. C.
Sass, L. C.
Savage, G. T.
Sayle, R. G.
Schade, R. E.
Schaefer, A. A.
Schelble, E. J.
Schelble, J. P.
Schlaepfer, K.
Schlomovitz, B. H.
Schlomovitz, E. H.
Schlossmann, B.
Schlueter, U. A.
Schmidt, A. C.
Schmidt, H. G.
Schmidt, J. A.
Schmit, Felix
Schmit, Louis
Schmitt, Gustav
Schmitt, Phillp
Schneeberger, L. J.
Schneider, C. C.
Schneider, C. R.
Schodron, R. C.
Schoen, C. M.
Scholter, E. A. W.
Scholz, G. M.
Schoofs, O. P.
Schowalter, R. P.
Schramel, A. J.
Schroeder, J. C.
Schubert, F. J.
Schulz, Irwin
Schumacher, H. S.
Schumm, H. C.
Schutte, A. G.
Schwade, E. D.
Schwartz, A. B.
Schweitzer, G. J.
Schweitzer, W. A.
Scollard, W. J.
Seeger, S. J.
Seegers, F. W.
Seelman, J. J.
Selle, F. S.
Senn, Ulrich
Shalken, Joseph
Sherwood, M. W.
Shlmpa, J. F.
Shutkin, Michael
Shutter, H. W.
Siekert, H. P.

On the night before Operation

. . . worry and sleeplessness can be prevented. One pulvule of 'Sodium Amytal' (Sodium Iso-amyl Ethyl Barbiturate, Lilly), 3 grains, usually insures a good night's rest. On the following morning, if the dose is repeated an hour or more before transference to the operating room, there is assurance of basal hypnosis, and induction of anesthesia will be easier for both patient and anesthetist. The total quantity of anesthetic required will be reduced—an important factor in smooth postoperative convalescence.

'Sodium Amytal' is also suggested for general medical use.

Supplied in 1-grain and 3-grain pulvules (filled capsules) in bottles of 40 and 500.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

Silbar, S. J.
Slvyer, A. W.
Slutzky, Nathan
Smith, E. A.
Smith, J. W.
Smith, L. D.
Smith, S. M.
Smuckler, R. H.
Spilberg, S. B.
Spitz, M. M.
Spooner, A. D.
Sproule, R. P.
Squier, T. L.
Stack, S. S.
Stamm, L. P.
Stefanez, J. S.
Steffensen, W. H.
Steiner, C. M.
Steinkopff, E. K.
Stern, Louis
Stirn, F. J.
Stockinger, R. E.
Stoddard, C. H.
Stratton, F. A.
Studley, W. H.
Suhr, A. L.
Sure, J. H.
Sweemer, W. M.
Sweet, S. J.
Tabachnick, H.
Tallmadge, G. K.
Tashkin, E. H.
Taugher, J. S.
Taylor, J. Gurney
Tegtmeyer, G. F.
Teschan, R. A.
Teschan, R. F.
Tessier, A. F.
Tharinger, E. L.
Thill, D. P.
Thill, G. E.
Thompson, E. X.
Thompson, F. A.
Thompson, R. D.
Tillson, E. M.
Tisdale, L. C.
Tolan, T. L.
Tomkiewicz, Nina
Torcivia, S. S.
Truitt, J. W.
Tufts, Millard
Turney, C. F.
Urdan, B. E.
Usow, J. M.
Van de Erve, W.
Vander Linde, L. A.
Van Hecke, L. J.
Wagner, P. C.
Waldeck, E. A.
Waldman, I. J.
Walker, L. J.
Wallschlaeger, G. G.
Walton, W. B.
Warfield, L. M.
Warner, R. C.
Warschauer, B.
Washburn, R. G.
Washburn, W. H.
Waslelewski, S. F.
Watry, T. D.
Weber, A. J.
Wegmann, G. H.
Wegmann, N. J.
Weingart, W. F.
Weinshel, L. R.
Weisfeldt, L. A.
Weisfeldt, S. C.
Wenn, J. F.
Wenstrand, D. E. W.
Werner, D. J.
Westhofen, R. C.
Wetzler, S. H.
Whalen, G. E.
Wheelihan, R. Y.
Wieder, L. M.
Wiese, M. E. J.
Wiesen, R. P.
Wilets, J. B.
Wilkinson, E. D.
Winnemann, W. J.
Wirthwein, Carlton
Witte, D. H.
Witte, W. C. F.
Wolter, S. H.
Wyman, J. F.
Yaffe, Aaron
Yanke, A. E.
Yates, J. L.
Ziegler, C. K.
Zillmer, Helen J.
Zimmermann, C.
Zintek, S. S.
Zivnuska, J. F.
Zmyslony, W. P.
Zuercher, J. C.
Zurhelde, H. O.

Mineral Point:
Ludden, H. D.
Ridley, S. R.
White, C. L.

Minocqua:
Torpy, T. G.

Minong:
Hilliard, H. G.

Mishicot:
Huth, E. W.
Skwor, C. J.

Mondovi:
Sharp, D. S.

Monroe:
Baumle, C. E.
Bear, N. E.
Bear, W. G.
Creasy, L. E.
Gnagi, W. B., Jr.
Gnagi, W. B., Sr.
Mauermann, J. F.
Moore, L. A.
Ruehlman, D. D.
Schindler, J. A.
Schneider, H. O.

Montello:
Federman, E. H.
McNamara, L. V.

Monticello:
Ohlsen, M. P.

Montreal:
Garry, M. W.
Krumpelbeck, A. C.
Ringo, H. F.

Mosinee:
Butler, E. F.
Jackson, J. A.

Mount Calvary:
Baasen, J. M.

Mount Horeb:
Buckner, H. M.
Thompson, A. S.

Mukwonago:
Purdy, F. P.
Voellings, W. J.

Necedah:
Meyer, H. C.

Neenah:
Baxter, H. L.
Beglinger, H. F.
Brunckhorst, F. O.
Canavan, J. P.
Greenwood, S. D.
Lowe, R. C.
Ozanne, B. K.
Ozanne, I. E.
Pitz, M. N.
Rogers, R. B.
Smith, T. D.
Williamson, G. H

Neillsville:
Frank, J. H.
Housley, H. W.
Morse, L. M.
Rosekrans, M. C.

Nekoosa:
Backus, O. A.
Broderick, C. F.
Pomainville, G. J.

Nelsonville:
Raasoch, H.

Newburg:
Weber, H. F.

New Franken:
Looze, J. A.

New Glarus:
Francois, S. J. A.
Hicks, E. V.
McQuillin, E. D.

New Holstein:
Engel, A. C.
Krohn, H. C.

New Lisbon:
Starnes, Brand

New London:
Borchardt, M. A.
Monsted, J. W.
Pfeifer, F. J.
Schmallenberg, H. C.

New Richmond:
Armstrong, J. H.
Epley, O. H.

Newton:
Barnstein, C. H.

Niagara:
McCormack, Edw.

North Freedom:
Myers, C. E.

North Lake:
Donnelly, F. J.

Norwalk:
Allen, J. S.

Oconomowoc:
Clark, O. C.
Hassall, J. C.
Loughnan, A. J.
Love, G. R.
McCarthy, J. J.
Nammacher, T. H.
Peters, H. A.
Stemper, I. G.
Wilkinson, D. C.
Wilkinson, J. D.
Wilkinson, J. F.
Wilkinson, M. R.
Wing, W. S.

Oconto:
Kwapy, C. R.
Rogers, R. J.
Slaney, A. F.
Tousignant, A. N.
Watkins, W. C.

Oconto Falls:
Goggins, R. J.
Krahn, G. W.
Ohswaldt, H. F.

Ogdensburg:
Johnson, J. C.

Omro:
Davis, K. W.
Schoenbechler, L. J.

Onalaska:
Reay, G. D.

Ontario:
Devine, G. C.

Orfordville:
Belting, G. W.

Osceola:
Johnson, K. F.
Simenstad, L. O.

Oshkosh:
Behnke, C. H.
Bitter, R. H.
Brennan, F. J.
Clark, Burton
Clark, W. E.
Combs, C. J.
Conley, J. M.
Connell, F. Gregory
Cummings, E. F.
Danforth, Q. H.
Dickelmann, L. E.
Ebert, R. O.
Haines, M. C.
Haubrick, H. J.
Helmes, L. O.
Hogan, J. M.
Hugo, D. G.
Ihrke, I. A.
Kleinschmit, H. W.
Koehler, A. G.
Kronzer, J. J.
Lee, H. J.
Linn, W. N.
Lockhart, J. W.
Lynch, G. V.
Mellicke, C. A.
Meusel, H. H.
Owen, G. C.
Peake, E. P.
Pfefferkorn, E. B.
Romberg, H. A.
Schein, J. E.
Smith, L. M.
Steele, G. A.
Stein, J. F.
Sutherland, J.
Wagner, W. A.
Wheeler, W. P.
Williams, E. B.

Osseo:
Knutson, O.
Leasum, R. N.

Owen:
Dike, B. H.

Oxford:
Ingersoll, R. S.

Palmyra:
Bertolaet, E. E.

Pardeeville:
Chandler, J.
Gillette, H. E.

Park Falls:
Leahy, J. D.
Riley, E. A.

Pepin:
Belitz, A. E.
Brookie, R. W.

Peshtigo:
Haasl, H. W.

Pewaukee:
Egloff, L. W.
Hoel, K. P.
Kelly, J. P.

Phelps:
Lutz, J. J.

Phillips:
Norviel, H. B.
Rens, J. L.
Van Hecke, D. S.

Pittsville:
Beyer, Hart
Pomainville, H. G.

Plain:
Fowler, P. H.

Plainfield:
Andrae, R. W.

Platteville:
Andrew, C. H.
Cunningham, Wilson
Hannan, K. D. L.
Schuldt, C. M.
Soles, F. A.

Plum City:
Anderson, O. H.

Plymouth:
Brickbauer, A. J.
Deicher, H. F.
Mueller, J. F.
Radloff, A. C.
Sieker, A. W.
Yoran, C. M.

Portage:
Batty, A. J.
Doersch, E. A.
Gorton, F. T.
Harkins, J. P.
Henney, C. W.
Kellogg, J. R.
MacGregor, J. W.
Meacher, B. C.
Rawlins, J. A.
Snyder, K. A.
Taylor, W. A.
Tierney, E. F.

Port Washington:
Barr, Arnold
Drissen, W. H.
Stein, C. C.

Potosi:
Kelly, Wm. J.

Pound:
Armstrong, G. E.

Poynette:
Dryer, R. B.
Focke, W. J.

Prairie du Chien:
Armstrong, C. A.
Farrell, T. E.
Farrell, T. F.
Kane, J. J.
Kleinpell, H. H.
Lechtenberg, E. H.
Satter, O. E.
Shapiro, H. L.
Welsh, S. M.

Prairie du Sac:
Hudson, R. J.

Prentice:
MacKinnon, G. E.

Prescott:
Dill, G. M.
Jones, L. E.

Princeton:
Eppley, J. E.
Mueller, G. G.

Pulaski:
Goggins, J. R.

Racine:
Adamski, A. W.
Albino, J. M.
Anderson, J.
Beeson, H. B.
Brehm, H. G
Brehm, H. J.
Browne, C. F.
Buckley, W. E.
Christensen, F. C.
Constantine, C. E.
Corr, J. T.
Docter, John
Faber, S. J.
Fazen, L. E.
Gillett, G. N.
Grant, R. S.
Hahn, C. K.
Hahn, P. R.
Hanson, W. C.
Hemmingsen, T. C.
Henken, J. F.
Hermes, M. J.
Hogan, J. H.
Holmes, B. H.
Howe, H. W.
Jamieson, R. D.
Jones, Beatrice O.
Jones, Susan
Kehl, K. C.
Keland, H. B.
Kline, C. L.
Konnak, Wm. F.
Kreul, R. W.
Kurten, R. M.
Lifschutz, L. M.
Lindner, A. M.
Marek, F. B.
Meachem, J. G.
Miller, H. C.
Nelson, A. L.
Northey, T. McK.
Peterson, R. O.
Pfeffer, T. J.
Pfeifer, E. C.
Pfeiffer, A. S.
Pfeiffer, O. W.
Pope, F. W.
Ross, G. L.
Roth, W. C.
Schacht, E. W.
Schacht, R. J.
Schaefer, C. O.
Schneller, E. J.
Schnetz, L. N.
Thackeray, R. C.
Thompson, I. F.
Tompach, E. L.
Tucker, I. N.
von Buddenbrock, E.
von Jarchow, B. L.
Wagner, N. B.
Walter, G. W.
Weiss, A. A.
Wier, F. A.

Randolph:
Costello, W. H.
Jones, A. W.

Random Lake:
Malloy, T. E.
Russell, J. A.

Reedsburg:
Fike, F. A.
Pawlisch, O. V.
Sporleder, Otto
Stadel, E. V.
Stanton, E. D.

Reedsville:
Cary, E. C.

Reeseville:
Bargholtz, W. E.

Rhinelander:
Bump, W. S.
Frisbie, R. L.
Gager, W. F.
Harter, A. F.
Kaiser, L. F.
Komasinski, V. W.
Packard, C. D.
Richards, C. A.
Schiek, I. E.
Westgate, H. J.

Rib Lake:
Baker, G. L.
Lapham, E. A.

Rice Lake:
Charron, T. A.
Dawson, D. L.
Hatleberg, E. J.
Knapp, E. J.
Rydell, O. E.
Rydell, W. B.
Sattre, O. M.
White, A. S.

Richfield:
Kern, T. J.

Richland Center:
Benson, G. B.
Benson, G. H.
Bowen, C. F.
Coumbe, W. R.
Dull, C. F.
Edwards, W. C.
Housner, R. E.
McCord, T. B.
Pippin, B. I.
Sholtes, C. A.

Rio:
Maas, W. C.
Pease, W. A.

Ripon:
Cole, D. F.
Johnson, J. M.
Kocovsky, E. C.
O'Neal, Orvil
Senn, C. U.
Watson, E. L.

River Falls:
Cairns, Rolla
Dawson, C. A.
McJilton, C. E. J.

Rosendale:
Scheid, M. M.

Rosholt:
Benn, V. H.

St. Croix Falls:
Caldwell, H. C.
Riegel, J. A.

St. Nazianz:
Foley, M. E.

Salem:
Fletcher, W. T.

Sauk City:
Bachhuber, H. A.
Hudson, L. A.

Sawyer:
Konop, E. J.

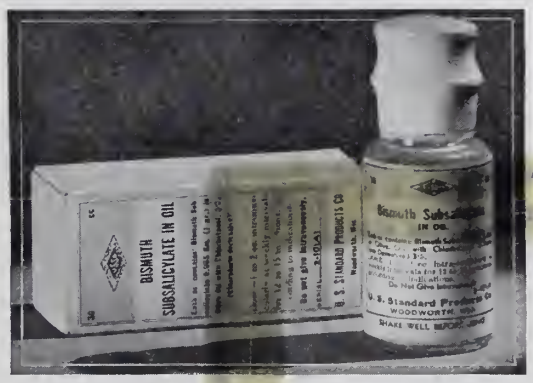
Seymour:
Hittner, V. J.
Holz, A. P.
Sieb, L. H.

Sharon:
Fishback, C. F.
Treat, C. R.

Shawano:
Cantwell, A. A.
Cantwell, R. C.
Peterson, L. W.
Schroeder, E. L.
Stubenvoll, C. E.

Sheboygan:
Bock, A. B. C.
Boersma, J. J.
Eigenberger, F.
Fiedler, Otho A.
Ford, W. A.
Genter, A. E.
Glaubitz, B. J.
Gruenwald, Ludwig
Gunther, T. J.
Heiden, H. H.
Hildebrand, G. J.
Huibregtse, W. G.
Juckem, G. J.

BISMUTH SUBSALICYLATE (U.S.S.P.)
FOR TREATMENT OF SYPHILIS



ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

According to clinical results, Bismuth Subsalicylate offers the following advantages:

- Relatively non-toxic when the dose is properly controlled.
- No contraindications when administered following arsphenamine or mercury.
- Practically non-irritating so far as local pain from the injection is concerned, and freedom from abscesses at site of injection.
- U.S.S.P.Co. Bismuth Subsalicylate does not settle solidly—easy to shake.

Write for catalog or information on any product in which you are interested.

UNITED STATES USSP STANDARD PRODUCTS

U.S. STANDARD PRODUCTS CO. Woodworth, Wis.

Junck, J. A.
Knauf, A. J.
Knauf, G. E.
Kolb, F. E.
Kraft, Siegfried
Mason, P. B.
McRoberts, J. W.
Meier, Wm. G., Jr.
Nause, F. A., Jr.
Neumann, W. H.
Ryan, E. S.
Schmitt, A. J.
Simonson, L. M.
Sonnenburg, C. N.
Sonnenburg, W. M.
Squire, C. A.
Stannard, G. H.
Tasche, C. T.
Tasche, John Jr.
Tasche, J. C.
Tasche, L. W.
Van Zanten, Wesley
Van Zanten, Wm.
Weber, C. J.
Zaegel, R. L.

Sheboygan Falls:
Hansen, H. J.
Pfeiler, A. G.

Shell Lake:
Hering, E. R.

Shiocton:
LaCroix, G. M.

Shullsburg:
Ennis, S. A. J.
Gratiot, M. P.
Hoesley, H. F.

Silver Lake:
Becker, B. A.

Slinger:
Prefontaine, K. F.

Soldiers Grove:
Dillman, A. E.
McDowell, A. J.
Sannes, W. A.

Solon Springs:
Wilcox, A. G.

South Milwaukee:
Dempsey, G. P.
Flaherty, G. S.
Oberfeld, H. H.
Rumph, C. L.
Sanford, J. A.
Sickels, W. A.

Sparta:
Beebe, C. D.
Beebe, C. M.
Beebe, D. C.
Beebe, S. D.
Jorris, E. H.
Phalen, C. S.
Scantleton, J. M.
Williams, H. H.
Williams, H. H., Jr.

Spencer:
Callahan, H. T.

Spooner:
Lemmer, G. N.
Muccilli, A. E.

Spring Green:
Nee, Frank
Wahl, C. M.

Spring Valley:
Conway, H. P.
Conway, J. M.

Stanley:
Graber, R. E.
Overgard, A. W.

Star Prairie:
Perrin, H. E.

Statesan:
Coon, H. M.
Daniels, E. H.

Stevens Point:
Benn, H. P.
Cowan, W. F.
Crosby, E. P.
Dunn, A. G.
Frawley, D. D.
Gramowski, W. A.
Gregory, W. W.
Harrington, T. L.
Iber, F. C.
Kidder, E. E.
Krembs, F. R.
Marrs, F. A.
Miller, S. R.
Rice, R. W.
Sheehan, W. C.
Stollenwerk, R. J.
von Neupert, C.
Wisiol, Erich

Stockbridge:
Knauf, J. A.

Stoughton:
Horn, A. S.
Keenan, H. A.
Olson, A. L.
Schoenbeck, R. F.
Smedal, A. T.

Sturgeon Bay:
Dorchester, D. E.
Huff, F. C.
Leasum, Charles
Muehlhauser, J. O.

Sturtevant:
Peehn, F. G.

Sullivan:
Notbohm, W. R.

Sun Prairie:
McCabe, J. M.
Peterson, L. W.
Wyant, M. E.

Superior:
Averbook, M. S.
Baird, John
Beebe, L. W.
Carpenter, E. E.
Christiansen, C. H.
Conklin, G. H.
Cummings, J. H.
Doyle, T. J.
Ekblad, V. E.
Giesen, C. W.
Goodfellow, J. R.
Ground, W. E.
Hathaway, G. J.
Kyllo, J. C.
Lohmiller, R. K.
Mason, C. H.
McGill, J. W.
McGill, P. G.
Meyers, J. M.
Myers, E. A.
O'Leary, T. J.
Orchard, H. J.
Perrin, S. H.
Sarazin, F. C.
Schnell, W. H.
Searle, D. R.
Sincock, H. A.
Smith, R. C.
Wall, M. H.
Weisberg, J. H.
Zwickey, W. H.

Suring:
Dougherty, J. S.

Sussex:
Van Valin, E. C.

Theresa:
Langenfeld, P. F.

Thiensville:
Carthaus, A. H. C.
Kaller, M. B.
Rock, J. W.
Scholz, H. F.

Thorp:
Kulig, A. H.
Neis, F. P.

Three Lakes:
Hypes, F. E.

Tigerton:
Gates, A. J.

Tomah:
Bell, A. R.
Hyslop, C. J.
Scheurich, L. G.
Sheehy, T. J.
Winter, A. E.

Tomahawk:
Baker, G. R.
Baker, R. G.
Henderson, R. J.
Kahn, E. M.
McCormick, W. C.

Turtle Lake:
Shima, R. T.

Two Rivers:
Bussey, Arthur
Gates, Eugene
Martin, R. E.
Moriarty, L. J.
Rau, Gerald
Rothenmaier, G. L.
Zlatnik, A. P.

Union Grove:
Atherton, C. C.
McCracken, R. W.
Schulz, G. J.

Valders:
Simenson, R. S.

Verona:
Sharpe, H. A.

Viola:
Parke, George

Viroqua:
Gulbrandsen, L. F.
Ludden, R. H.
Trowbridge, C. H.
Trowbridge, W. M.

Wabeno:
Tenley, O. S.

Walworth:
Coon, W. W.
Richardson, W. C.

Warrens:
Bassuener, R. O.

Washburn:
Taylor, A. C.

Waterford:
Dietz, R. J.
Malone, F. A.
Wigod, David

Waterloo:
Allen, S. C.
Dennis, J. F.
Fiebiger, G. J.

Watertown:
Abelmann, T. C. H.
Becker, W. C.
Bowen, E. W.
Bowen, H. P.
Dierker, O. F.
Hahn, A. C.
Kosanke, F. E.
Nickels, A. C.
Nowack, L. H.
Waite, W. S.
Wallner, A.
Zimmermann, F. H.

Waukesha:
Browne, K. B.
Campbell, P. E.
Campbell, W. B.
Caples, B. M.
Christiansen, J.
Davies, E. B.
Davies, R. E.
Edmondson C. C.
Frick, J. C.
Gantz, H. A.
Harkness, G.
Hodgson, A. J.
Kenny, H. F.
Nicely, W. E.
Noble, J. B.
Oatway, W. H.
Scheele, F. M.
Sydow, H. F.
Tibbitts, U. J.
Waite, R. A.
Werra, M. J.
Williams, A. J.
Wood, C. A.
Woodhead, F. J.

Waunakee:
Shaw, B. W.

Waupaca:
Boudry, M. O.
Christofferson, A. M.
Patterson, L. G.
Salan, Sam

Waupun:
Clark, F. T.
Deerhake, W. A.
Guth, H. K.
Settle, R. O.
Swartz, K. A.

Wausau:
Addleman, I. M.
Boslough, A. W.
Christensen, H. H.
Christensen, H. W.
Doyle, J. N.
Eastman, V. E.
Fechtner, H. H.
Fehland, H. R.
Fisher, R. F.
Flemming, E. E.
Freeman, J. M.
Frenzel, W. C.
Frey, F. H.
Jones, D. T.
Jones, M. L.
Juers, R. H.
Ludwig, E. P.
Macaulay, E. M.
Pearson, L. M.
Prehn, F. C.
Reist, P. Z.
Schlegel, H. T.
Smith, J. F.
Smith, S. M. B.
Stahmer, A. H.
Stevens, G. H.
Trumbo, J. K.
Wilson, O. M.
Zilisch, W. E.

Wausaukee:
Ehmer, J. W.
Horswell, U. M.

Wautoma:
Beck, A. A.
Karnopp, G. L.

Wauwatosa:
Banyai, A. L.
Bauer, Frederick
Benjamin, H. B.
Cutler, J. S.
Dallwig, E. L.
Dettmann, N. F.
Feasler, C. H.
Furlong, J. J.
Hansen, R. T.
Hershberg, R. A.
Herzog, J. V.
Howard, M. Q.
Janney, F. R.
Kasak, Michael
Kehlnhofer, F. H.
Kradwell, W. T.
Osgood, C. W.
Peterson, E. F.
Regan, James
Roberts, H. M.
Sargeant, H. W.
Shabart, E. J.
Sleyster, Rock
Storchheim, Frederic
Ulvin, Henry
Young, A. F.

Wauzeka:
Rauchschwalbe, L. E.

Wayside:
Waldkirch, R. M.

Webster:
Maas, David

West Allis:
Frederick, R. H.
Friedbacher, K.
Heinan, F. C.
Hermann, A. H.
Hermann, W. C.
Hirsh, L. H.
Hoffmann, G. H.
Hofmeister, F. J.
Malensek, M. C.
Nimz, F. N.
Russell, F. H.
Stamm, M. P.
Steckler, Armin
Stern, C. S.
Stranberg, W. L.
Toepfer, R. A.
Van Ells, L. A.
Willett, Thomas

West Bend:
Bauer, K. T.
Frankow, R. O.
Heidner, A. H.
Kauth, P. M.
Lynch, H. M.
Wehle, W. J.

Westby:
Schee, John

☆

His First Solid Food

The baby's first solid food always excites the parents' interest. Will he cry? Will he spit it up? Will he try to swallow the spoon? Far more important than the child's "cute" reactions is the fact that figuratively and physiologically this little fellow is just beginning to eat like a man.

PABLUM is now being fed to infants as early as the third or fourth month because it gets the baby accustomed to taking food from a spoon, but, most important, Pablum early adds essential food substances to the diet. Among these are vitamins B_1 and G and calcium and, perhaps most necessary, iron. Soon after a child is born its early store of iron rapidly diminishes, and as milk is poor in iron, the loss is not replenished by the usual bottle-formula.

alfalfa leaf, beef bone, brewers' yeast, iron salt, and sodium chloride.

Mothers appreciate the convenience of Pablum as it needs no cooking.
Even a tablespoonful can be prepared simply by adding milk or water of any temperature.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.
Mead Johnson & Company, Evansville, Indiana, U. S. A.

West DePere:
Bolies, C. S.
Lenz, R. B.

Westfield:
Fredrick, H. H. F.
Fredrick, H. Y.
Moss, J. G.

West Salem:
Goedecke, R. H.
Wakefield, G. F.

Weyauwega:
Weller, E. A.

Wheeler:
Jeter, M. L.

Whitehall:
Mac Cornack, R. L.
Nereim, T. J.
Simons, N. S.
Tyvand, J. C.

White Lake:
Notbohm, D. R.

Whitewater:
Mauthe, Walter
Miller, R. H.

Williams Bay:
Wisweil, C. Y.

Winnebago:
Hughes, B. J.
Seaman, G. E.

Winneconne:
Springer, V. G.

Wisconsin Dells:
Radl, C. J.

Wisconsin Rapids:
Barnet, E. G.
Bennett, L. J.
Garrison, R. E.
Hougen, Edward
Looze, J. J.
Nelson, Wallace
Pomainville, F. J.
Pomainville, F. X.
Pomainville, L. C.
Waters, Don
Wright, P. E.

Wis. Veterans' Home:
Breckenridge, H. E.
Hafemeister, E. F.

Wittenberg:
Evenson, E. E.

Wood:
Pretts, W. W.
Rhea, C. W.

Woodruff:
Weed, L. G.

Woodville:
Blom, Julius

Wrightstown:
McLaughlin, W. J.

OUT-OF-STATE MEMBERS

Armbruster, J. L. ---------- Philadelphia, Pa.
Bachelle, C. V. ---------- Chicago, Ill.
Barnes, H. A. ---------- Philadelphia, Pa.
Becker, W. T. ---------- Philadelphia, Pa.
Benson, C. E. ---------- Bremerton, Wash.
Cash, I. I. ---------- Decatur, Ill.
Casper, S. L. ---------- Upper Darby, Pa.
Charles, J. D. ---------- Philadelphia, Pa.
Cline, Frances ---------- Baltimore, Md.
Cox, L. M. ---------- Chicago, Ill.
DeHollander, Wm. ---------- Springfield, Ill.
De Nosaquo, N. ---------- Detroit, Mich.
Erxleben, W. O. ---------- Chicago, Ill.
Haight, A. L. ---------- Crystal Falls, Mich.
Kammer, A. G. ---------- Chicago, Ill.
Kingsbury, L. H. ---------- Orlando, Fla.
Larson, J. A. ---------- Anaheim, Calif.
Morrison, J. T. ---------- New York, N. Y.
Nash, L. A. ---------- Chisholm, Minn.
Nylander, E. G. ---------- Minneapolis, Minn.
Paul, L. W. ---------- Kansas City, Mo.
Quade, R. H. ---------- Rochester, Minn.
Risjord, N. C. ---------- Highwood, Ill.
Sansby, J. M. ---------- St. Paul, Minn.
Shulak, I. B. ---------- Detroit, Mich.
Van Valzah, Robert ---------- Goby, Va.
Woodford, L. M. ---------- Chicago, Ill.

HONORARY MEMBERS OF COUNTY AND STATE SOCIETY

Barrett, E. J. ---------- Sheboygan
Bradley, H. C. ---------- Madison
Bromley, F. W. ---------- Whitewater
Caldwell, Margaret ---------- Waukesha
Chase, Samuel ---------- Madison
Clark, P. F. ---------- Madison
MacArthur, D. S. ---------- La Crosse
Maurer, A. A. ---------- New York, N. Y.
Meek, W. J. ---------- Madison
Miller, W. S. ---------- Madison
Pusey, W. A. ---------- Chicago, Ill.
Sullivan, W. E. ---------- Madison

THE JOURNAL BOOKSHELF

BOOKS RECEIVED FOR REVIEW

Manual of Clinical and Laboratory Technic. By H. B. Weiss, A.B., M.D., F.A.C.P., associate professor of medicine, University of Cincinnati College of Medicine, and Raphael Isaacs, A.M., M.D., F.A.C.P., associate professor of medicine, assistant director of the Thomas Henry Simpson Memorial Institute for Medical Research University of Michigan. Fifth edition, reset; 141 pages. Price, cloth, $1.50. Philadelphia and London: W. B. Saunders Company, 1937.

Concepts and Problems of Psychotherapy. By L. E. Hinsie, M.D., professor of clinical psychiatry, College of Physicians and Surgeons, Columbia University, and assistant director, New York State Psychiatric Institute and Hospital. Preface by N. D. C. Lewis, Neurological Institute of New York. One hundred and ninety-nine pages. Price, cloth, $2.75. New York: Columbia University Press, 1937.

Crippled Children: Their Treatment and Orthopedic Nursing. By E. D. McBride, B.S., M.D., F.A.C.S., assistant professor of orthopedic surgery, University of Oklahoma School of Medicine; attending orthopedic surgeon to St. Anthony Hospital; associate orthopedic surgeon to Oklahoma City General and Wesley hospitals; visiting surgeon to W. J. Bryan School for Crippled Children; chief of staff to Reconstruction Hospital, Oklahoma City; and member of American Academy of Orthopedic Surgeons, in collaboration with W. R. Sink, A.B., R.N., educational director, Grace Hospital School of Nursing, Detroit, Michigan. Second edition, 379 pages. Price, $3.50. St. Louis: The C. V. Mosby Company, 1937.

The Management of Fractures, Dislocations, and Sprains. By J. A. Key, B.S., M.D., clinical professor of orthopedic surgery, Washington University School of Medicine; associate surgeon, Barnes, Children's and Jewish hospitals, St. Louis, and H. E. Conwell, M.D., F.A.C.S., Birmingham, Alabama. Second edition, 1246 pages. Price, $12.50. St. Louis: The C. V. Mosby Company, 1937.

Mental Therapy: Studies in Fifty Cases. By L. S. London, M.D. Two volumes, 774 pages. Price, $12.50. New York: Covici Friede, 1937.

One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in the *Saturday Evening Post* and other leading magazines.

Your Doctor makes a Christmas List

In this season of Christmas lists, it is interesting to consider the list Modern Medical Science could write. It would be a list of achievement . . . a list of hope . . . a list, to many, of revelations. If your doctor, as your own personal representative of Medical Science, were to make such a list, here are some of the things he could offer:

For Babies

Modern Science has made this the safest time in all history for a baby to be born. The modern baby has a better chance than all its predecessors of entering this world sound and healthy—and of surviving that most dangerous period, the perilous first year.

For Children

Today, no child need have diphtheria—and modern laboratories have made available preventive measures against such other "diseases of childhood" as smallpox, scarlet fever, and whooping cough.

For Grown-ups

For the first time in history, men and women face a world that has conquered diabetes and pernicious anemia, and is waging a winning battle against syphilis. Since they were children, great strides have been made in surgery; and notable advances have been made in both diagnosis and treatment.

For the Middle-aged

The so-called "degenerative diseases" have long made middle age a hazardous age, and millions old before their time. With increasing understanding of circulatory disturbances, kidney disorders, and other ailments, Medical Science has prolonged the "prime of life".

For those in fear of Cancer

Through the miracles of modern surgery, X-Ray and radium, many cancers, if discovered in time, *can be cured*. And with present-day diagnostic methods, more cancers can be discovered early—discovered in the curable stage.

For those with Heart Trouble

These are only a few of the important contributions Medical Science has recently made to the good health and long life of our generation. Your doctor will be glad to tell you about them.

PARKE, DAVIS & COMPANY
Detroit, Michigan
The World's Largest Makers of Pharmaceutical and Biological Products

The 1937 Year Book of General Surgery. Edited by E. A. Graham, A.B., M.D., professor of surgery, Washington University School of Medicine, surgeon-in-chief of the Barnes and Children's hospitals, St. Louis. Eight hundred and twenty-seven pages. Price, $3. Chicago: The Year Book Publishers, Inc., 1937.

The Cerebrospinal Fluid. By H. H. Merritt, M.D., assistant professor of neurology, Harvard Medical School; director of the cerebrospinal fluid laboratory, Boston City Hospital, and F. Fremont-Smith, M.D., with a foreword by J. B. Ayer, M.D. Three hundred and thirty-three pages with seventeen illustrations. Price, cloth, $5. Philadelphia and London: W. B. Saunders Company, 1937.

The Principles and Practice of Rectal Surgery. By W. B. Gabriel, M.S., F.R.C.S., surgeon to St. Mark's Hospital, surgeon to Royal Northern Hospital, London. Second edition, 364 pages with nine colored plates and 162 illustrations in black and white, including eight plates. Price, 28 shillings. London: H. K. Lewis & Company, Ltd., 1937.

The Diagnosis and Treatment of Sexual Disorders in the Male and Female. By Max Huhner, M.D. Four hundred and ninety pages. Price, $5. Philadelphia: F. A. Davis Company, 1937.

The 1937 Year Book of General Medicine. Edited by G. F. Dick, M.D.; Lawrason Brown, M.D.; G. R. Minot, M. D., S.D., F.R.C.P. (Hon.) Edin.; W. B. Castle, M.D., A.M., M.D. (Hon.) Utrecht; W. D. Stroud, M.D.; and G. B. Eusterman, M.D. Eight hundred and thirty-two pages. Price, $3. Chicago: The Year Book Publishers, Inc., 1937.

Methods of Treatment. By Logan Clendening, M.D., clinical professor of medicine, medical department of the University of Kansas; attending physician, University of Kansas Hospitals; consulting physician, Kansas City General Hospital; physician to St. Luke's Hospital, Kansas City, Missouri. Chapters on special subjects by H. C. Andersson, M.D.; Ursulla Brunner, R.N.; J. B. Cowherd, M.D.; Paul Gempel, M.D.; H. P. Kuhn, M.D.; C. O. Rickter, M.G.; F. C. Neff, M.D.; E. H. Skinner, M.D.; E. R. DeWeese, M.D.; and O. R. Withers, M.D. Sixth edition, 879 pages. Price, $10. St. Louis: The C. V. Mosby Company, 1937.

Orthodiascopy: An Analysis of Over 1700 Orthodiascopic Examinations. By C. M. Kurtz, M.D., F.A.C.P., assistant professor of medicine, University of Wisconsin; cardiologist to the Wisconsin General Hospital, Madison. Two hundred forty-seven pages. Price, $3.50. New York: The Macmillan Company, 1937.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, S. M. I. Building, Madison, Wis.

Obstetrics and Gynecologic Nursing. By F. H. Falls, M.D., professor of obstetrics and gynecology, University of Illinois, College of Medicine; and Jane R. McLaughlin, R. N., supervisor of the department of obstetrics and gynecology, Research and Educational Hospital, University of Illinois, College of Medicine. Price $3. St. Louis: The C. V. Mosby Company, 1937.

This is a new book combining for the first time obstetric and gynecologic nursing. It is divided into two parts with the part on obstetrics occupying 243 pages and the gynecologic division 190 pages. The author states that "no attempt will be made to treat the various subjects exhaustively." The material must necessarily be discussed briefly because a large amount of material is covered in the amount of space available. Most books which are devoted to obstetric nursing alone are of the same size as this book.

Space is saved by discussing, at the beginning of the book, the anatomy and physiology of the female organs and then referring to these first chapters in the later discussion on gynecology. In my opinion this discussion on anatomy and physiology is not detailed enough to make it easy for students to understand. An illustration of the relationship between the reproductive organs and other pelvic organs is not given until page 285. Puberty and the menopause are each discussed in one short paragraph.

Labor and its management cover twelve pages and the care of the patient in labor ten pages which includes the delivery room procedure. This can hardly give the student enough knowledge to care adequately for the patient in labor.

Very little space is devoted to discussing prenatal care. Since this is such a very important subject it seems that it should be given more time.

The arrangement of most of the chapters is quite logical except that the care of the patient in labor is discussed after the nursing care during the puerperium and the care of the newborn have been considered.

The section on gynecology probably covers approximately the same material that most textbooks on gynecology cover. The discussion on *Diseases of the Vulva* is quite long in comparison to other diseases discussed. There is no chapter on diseases of the fallopian tubes but this is probably well omitted since infections of the fallopian tubes are discussed in the chapter on *Pelvic Infections* and ectopic pregnancy is discussed in the part on obstetrics. The pessary is mentioned as a form of treatment but is not described adequately nor is there a discussion on how it aids in supporting the uterus.

CANNED FOODS IN THE CONTROL OF LATENT AVITAMINOSIS A

● Cases of severe vitamin A deficiency are extremely rare in this country. Recent medical research, however, has shown that latent avitaminosis A occurs more frequently than hitherto might have been suspected (1).

Fortunately, latent avitaminosis is capable of early clinical detection. One of the first effects of prolonged suboptimal vitamin A intake is a lowered dark adaptation of the eye. Any deviation from normal in this respect can be readily determined by the photometer. A second direct result of continued mild avitaminosis A is the cornification of epithelial cells in certain tissues. The presence of such cornified cells in scrapings from the bulbar conjunctiva is indicative of avitaminosis A.

Using such methods, investigation has been made to determine the frequency of latent avitaminosis A in representative groups of American adults and children. The results of these researches are of interest to everyone concerned with human nutrition.

First, it has been shown that the incidence of latent avitaminosis A in America is surprisingly high. For example, in one instance (1d) more than one-third of the adult group under investigation displayed evidences of mild vitamin A deficiency; again, from one-fourth to three-fourths of the members of representative groups of children displayed similar manifestations (1b).

Second, it has been found that, in general, subjects exhibiting symptoms of mild avitaminosis A had been maintained on diets which may be considered suboptimal with respect to vitamin A. Last, but by no means least, it appears that these avitaminoses may be corrected and controlled by specific vitamin A therapy; by readjustment of the diet to provide a more liberal supply of vitamin A; or by a combination of these two procedures.

When readjustment of the diet to increase the vitamin A intake is being considered, attention might well be directed to commercially canned foods. Biochemical research has established that the canned varieties of foods notable for their vitamin A content are valuable dietary sources of the vitamin (2).

Available at all seasons on practically every American market, commercially canned foods will prove economical and reliable in the formulation of dietary regimes calculated to control latent avitaminosis A.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

1a. 1934. J. Amer. Med. Assn. 102, 892.
b. 1936. Ibid. 106, 996.
c. 1937. Ibid. 108, 7 and 15
d. 1937. Ibid. 109, 756.
2. 1931. J. Nutrition 4, 267
1932. Ind. Eng. Chem. 24, 650.
1933. J. Amer. Diet. Assn. 9, 295.
1935. Amer. J. Public Health 25, 1340.

This is the thirty-first in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

The chapter on *Operative Procedures* gives a brief description of a large number of operations and might be of some value to an operating room nurse.

There is very little discussion on the actual nursing care of obstetric and gynecologic patients, but perhaps the author did not intend to do this since he states in the preface that "the principles involved will be presented, and the clinical application of this knowledge to the duties of the nurse will be pointed out."

The book is of moderate size, the print is large and clear on a good quality of paper, and the material is easy to read. The illustrations in this book are drawings made by a medical artist. These drawings which are very clear and the glossary at the end of the book would be of value to any student.

Since obstetric and gynecologic nursing are frequently taught together it would be of great value to have a combined obstetric and gynecologic nursing book. Although this book combines the two subjects it does not seem comprehensive enough to be a good textbook. E. Z.

Synopsis of Genitourinary Diseases. By Austin I. Dodson, M. D., F. A. C. S., professor of genitourinary surgery, Medical College of Virginia; genitourinary surgeon to the hospital division, Medical College of Virginia; genitourinary surgeon to Crippled Children's Hosptal; urologist to St. Elizabeth's Hospital; urologist to St. Luke's Hospital and McGuire Clinic. Second edition; 294 pages with 112 illustrations. Price $3.00. St. Louis: The C. V. Mosby Company, 1937.

The author presents a concise review of the field of urology. Its brevity, along with its completeness in scope, makes the book particularly valuable to the undergraduate in his introduction to urology. Its usefulness would seem to be greatest as a handbook from which the student might readily gain the fundamentals of the urological problems which he meets. The illustrations are numerous and well chosen.

To the physician faced with the daily management of urologic cases, it is of course inadequate. The general practitioner, however, should find the book of considerable value. J. B. W.

Physical Therapy in Arthritis. By Frank H. Krusen, M. D., associate professor of physical medicine, The Mayo Foundation, University of Minnesota; head of the Section on Physical Therapy, The Mayo Clinic. Foreward by Melvin S. Henderson, M. D. Price $2.25. New York: Paul B. Hoeber, Inc., 1937.

This volume is intended for the use of general practitioners, giving them considerable insight into the various physical measures which are of proven benefit in the management of arthritis. Throughout the book the author emphasizes the fact that most of the measures outlined may be adequately applied in the home.

The book is well written, brief (180 pages), and to the point. Thermal measures (heat and cold) are suggested and their proper application outlined. Massage, its indications, contraindications, and technic are briefly dealt with. Such important procedures as rest, exercise and splinting are discussed. In the author's estimation, the important question of manipulation is better left to the orthopedist. Heliotherapy and ultraviolet are considered and good references given to more extensive treatises. Such homely, yet important factors as proper shoes, body mechanics (posture training), and walking exercises are given adequate treatment. Hydrotherapy is discussed and emphasis placed on its use in the home.

The more specialized physical measures such as electrical stimulation, ionization, diathermy and fever therapy (by physical means) are briefly discussed, adequate references being provided for anyone who wishes to learn more about them.

This short volume should be of considerable benefit to all physicians who wish to give their arthritic patients the best, and yet economical, care.

B. L. B.

Materia Medica, Pharmacology, Therapeutics, and Prescription Writing. By Walter A. Bastedo, Ph. M., M. D., Sc. D., F. A. C. P., consulting physician, St. Luke's Hospital, New York, St. Vincent's Hospital, Staten Island, and the Staten Island Hospital; president, U. S. Pharmacopoeial Convention 1930–40; member Revision Committee U. S. Pharmacopoeia. Formerly curator of the New York Botanical Garden, attending physician, City Hospital, New York, instructor in pharmacology, Cornell University, associate in pharmacology and therapeutics, and assistant clinical professor of medicine, Columbia University. Fourth edition, reset. Price $6.50, cloth. Philadelphia and London: W. B. Saunders Company, 1937.

This book supports the opinion of the reviewer that it is impossible for any author to present adequately the important subject-matter from the fields of materia medica, prescription writing, pharmacology and therapeutics in a book of 750 pages. Although this treatise is intended primarily for the practicing physician and should deal substantially with therapeutics, the average physician would have difficulty, for example, in intelligently using the arsenicals in the treatment of syphilis, if this book were his only source of information. Likewise, alcoholic derivatives of dubious therapeutic value, are accorded thirty-four pages, whereas only sixteen pages are devoted to a consideration of opium and all its derivatives. On the other hand, some subjects such as the use of digitalis in cardiac disease, are ably presented, as in previous editions. A considerable number of newer remedies, such as sulfanilamide and protamine-insulin, are included in this revision.

The book suffers from a lack of reference citation, which if present would allow the physician to augment his information on the subjects which are inadequately covered. The book more nearly fulfils its title as a materia medica but is scarcely to be recommended in either the field of pharmacology or therapeutics. M. H. S.

16,000 ethical practitioners

Since 1902

carry more than 48,000 policies in these Associations whose membership is strictly limited to Physicians, Surgeons and Dentists. These Doctors save approximately 50% in the cost of their health and accident insurance.

$1,475,000 Assets

Send for application for membership in these purely professional Associations

$200,000 Deposited with the State of Nebraska

for the protection of our members residing in every State in the U. S. A.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION
400 First National Bank Building
OMAHA - - - NEBRASKA

Since 1912

Orthopedic Appliances

Abdominal Belts — Elastic Stockings
Whitman Arch Plates — Trusses
Braces of all Descriptions

Artificial Limbs
Trained Mechanics and Fitters Only

THE ORTHOPEDIC APPLIANCE CO.
123 East Wells St.
Tel. Daly 3021 — Milwaukee, Wis.

FORTIER and FORTIER
X-RAY LABORATORY

Deep Therapy, 200,000 Volts
Superficial Therapy
Roentgen Diagnosis

Radiographic Examinations made at bedside in residence if desired.

709-710 MAJESTIC BUILDING
MILWAUKEE

Office Marquette 5150-5151 — *Residence* Edgewood 0420

To increase the food intake of CALCIUM *and* PHOSPHORUS

The need for *increased* intake of Calcium and Phosphorus (among other things) is very great during pregnancy and lactation. Cocomalt has proved itself of especial value during these periods of stress.

For each ounce of Cocomalt has been fortified with .15 gram of Calcium and .16 gram of Phosphorus. Result: An eight-ounce glass of milk with one ounce of Cocomalt provides .39 gram of Calcium, .33 gram of Phosphorus. And, helping insure that the system can utilize the Calcium and Phosphorus, each ounce-serving of Cocomalt also contains 81 U.S.P. Units of Vitamin D, derived from natural oils and biologically tested for potency.

Cocomalt is Rich in Iron, Too

Each ounce-serving of Cocomalt provides 5 milligrams of effective Iron that has been biologically tested for assimilation. Thus, 3 glasses of Cocomalt and milk, leading authorities agree, supplies the normal patient's daily optimum Iron requirement.

It is for these reasons that physicians prescribe Cocomalt not only for expectant and nursing mothers but also for the correction of diet deficiencies in other patients. The creamy, delicious flavor of Cocomalt appeals to young and old alike. It is easy to digest. And Cocomalt is inexpensive . . . ½-lb., 1-lb. and the economical 5-lb. hospital size in purity-sealed cans are sold at grocery and drug stores.

Cocomalt is the registered trade-mark of R. B. Davis Co., Hoboken, N. J.

	1 Ounce of Cocomalt adds	1 Glass of Milk (8 Liquid Ozs.) contains	Result! 1 Glass of Cocomalt and milk contains
†IRON	0.005 GRAM	*TRACE	0.005 GRAM
†VITAMIN D	81 U. S. P. UNITS	*SMALL AMOUNT; VARIABLE	81 U. S. P. UNITS
†CALCIUM	0.15 GRAM	0.24 GRAM	0.39 GRAM
†PHOSPHORUS	0.16 "	0.17 "	0.33 "
PROTEIN	4.00 GRAMS	7.92 GRAMS	11.92 GRAMS
FAT	1.25 "	8.53 "	9.78 "
CARBOHYDRATES	21.50 "	10.97 "	32.47 "

★*Normally Iron and Vitamin D are present in Milk in only very small and variable amounts.*

† *Cocomalt, the protective food drink,* is fortified *with these amounts of Calcium, Phosphorus, Iron and Vitamin D.*

FREE: TO ALL DOCTORS

R. B. Davis Co., Hoboken, N. J. Dept. ZZ-12
I'll gladly try Cocomalt at your expense.
Doctor _____
Street and Number _____
City _____ State _____

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane; 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

FOR SALE—Unopposed practice and office equipment in Redgranite, Wisconsin. Good hospital nearby. Several small villages surrounding that have no physician. Reason for leaving: I desire to take up further studies. Communicate with T. V. Niemann, M. D., Redgranite, Wisconsin.

FOR SALE—Very desirable unopposed practice in small town, good drawing territory from rich farming community, roads open all year, high school, open hospitals near, good living from the start. Low price for completely furnished steam-heated office ready to do business. Write quickly for particulars. Address replies to No. 1 in care of Journal.

FOR SALE—Home and office with separate entrance. Partly furnished if desired. Office furniture steel enameled. Northeastern Wisconsin. Twin city population about 30,000. Splendid schools and churches. Hospital facilities available to an able and well-trained man. Terms to suit given on good security. Fifty years in practice. Must retire on account of failing heart. Address T. J. Redelings, M. D., Marinette, Wisconsin.

FOR SALE—Long-established eye, ear, nose and throat practice in downtown Milwaukee. Willing to introduce. Address No. 4 in care of Journal.

FOR SALE—Desirable practice including drugs and equipment in good southern Wisconsin dairy section, near hospital. Opposition right; low overhead. Will introduce. Price $300 cash. Address replies to No. 6 in care of Journal.

WANTED—Assistant on a guaranteed salary basis. A clinic of three physicians which has been established for thirty years desires to secure a physician with some experience in general practice but one who has had special training in internal medicine. The clinic is combined with the hospital and located in a small rural community in the northern part of the State. Applicant must have Wisconsin license. Protestant preferred. Conversational command of Scandinavian language helpful but not essential. Applicant who is accepted may begin at once. If interested, please write fully giving details of education, experience, special training, nationality, age, and marital status. Send photograph with application if possible. Address replies to No. 7 in care of Journal.

WANTED—Assistant in general practice in a town of 1,000 in central Wisconsin. Young man with some practical experience preferred. Address replies to No. 2 in care of Journal.

WANTED—General practitioner to associate with and share an attractive downtown office suite with an established eye, ear, nose, and throat specialist in Milwaukee. Would prefer one who desired to work into this specialty in the future. Address replies to No. 72 in care of Journal.

WANTED—One or two additional specialists to share an excellently equipped and furnished suite in a Milwaukee downtown office building. Secretarial, x-ray, and laboratory facilities provided. Address replies to No. 59 in care of the Journal.

WANTED—Resident physician in high-rated Milwaukee hospital. Attractive salary. Address replies to No. 3 in care of Journal.

WANTED—Assistant to general practitioner in northern Wisconsin. Excellent hospital facilities. Guaranteed income. Catholic preferred. Address replies to No. 99 in care of Journal.

BIDWELL BETTER LIMBS

Everyone Receives the Personal Attention of G. L. Bidwell the well-known Orthopedic Appliance Expert.

EXPERIENCED LADY ATTENDANT

Artificial Limbs, Braces, Trusses, Elastic Stockings, Crutches, Invalid Chairs, Abdominal Belts.

934 N. WATER ST.
PHONE BROADWAY 4369
MILWAUKEE, WISCONSIN

NORTH SHORE HEALTH RESORT

Established 1901
Located on the Shore of Beautiful Lake Michigan
WINNETKA, ILLINOIS
16 Miles North of Chicago
Thoroughly Equipped Sanitarium
Hydrotherapy - Electrotherapy - Massage - Dietetics
Special facilities are offered for the care and treatment of nervous and chronic diseases
Occupational Therapy Department
Ideal for Convalescents
Write for Booklet or Phone WINNETKA 211
Wm. R. Whitaker,
Manager

NON-CANCELLABLE

Health and Accident Insurance

and

Low Cost, Guaranteed Rate Life Insurance

THE MASSACHUSETTS PROTECTIVE COMPANIES
Worcester, Massachusetts

PERCY A. TREZISE, General Agent
5000 Plankinton Building
Milwaukee, Wisconsin

Examine

HAMILTON

before you buy

New Furniture

No. 9477 Table (above) $126.00

The No. 9477 Hamilton Nu-Classic Examining Table is modern in every sense of the word—modern in style and modern in its efficient arrangement.

SEE THEM AT OUR STORE

HAMILTON TABLES NOW ON DISPLAY

No. 9460
$165.00
The finest examining table made, conservative, spacious and efficient.

No. 9448
$97.50
A lower priced Hometone Table.

No. 9471
$145.00
The finest table in our modern Nu-Classic Line.

No. 9466-S
$94.00
Our lower priced Nu-Classic Table.

ROEMER DRUG CO.

606 N. Broadway, Milwaukee, Wis.

When smokers changed to Philip Morris cigarettes, every case of irritation of the nose and throat due to smoking cleared completely or definitely improved.*

In Philip Morris, diethylene glycol is used exclusively as the hygroscopic agent, instead of the hygroscopic agent commonly employed.

PHILIP MORRIS & CO.

PHILIP MORRIS & CO. Ltd. Inc.
119 Fifth Avenue New York

Please send me reprints of papers from

★*Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245* ☐
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154 ☐
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11 ☐
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60 ☐

SIGNED: _____

ADDRESS _____

CITY _____ STATE _____ (WIS.)

Capital City Doctors

Patronize These Reliable Madison Firms Who Sell Proven Products, Services

Prescription Service at

RENNEBOHM

Better Drug Stores

is always

100% Dependable

Biologicals—Chemicals—Drugs

FIRST CENTRAL DISPENSARY

602 First Central Bldg.
Madison, Wis.
Phone: Badger 7929

RELIABLE PRESCRIPTION SERVICE

LORAINE HOTEL

Fireproof

SCHROEDER HOTELS

Sleep in Safety

CENTRAL GARAGE

15 South Webster St.

Parking and General Service

MODERN — CONVENIENT
ALWAYS DEPENDABLE

Ampoules, Biologicals, Chemicals, Household Drugs, Photographic Chemicals, Bacteriological Stains, Trusses, Camp Surgical Supports, "Leeches."

THE PRESCRIPTION PHARMACY

Samuel R. Chechik, Ph.D.

20 S. Carroll St. Phone: Badger 755
"The Park Hotel Building"

Office: Badger 787 Residence: Badger 2308

AUTO SERVICE COMPANY, Inc.

Dan Bilsie

"Private Ambulance Service"

750 E. Washington Ave. Madison, Wis.

CASE HISTORIES

in Blied files are safe

Stationers Printers

BLIED

114 E. Washington Ave. Madison, Wis.

USE THE MEDICAL LIBRARY SERVICE

412 North Charter Street

Madison

Service for Members at the Cost of Postage.

Why Cosmetics?

Because . . .

It is woman's nature to make the most of her appearance . . .

Because, carefully selected and intelligently used, cosmetics keep a woman looking her best . . .

Because the knowledge that one's appearance is pleasing has a great deal to do with a healthy attitude towards life . . .

And because the chances are that you yourself, Doctor, perhaps without realizing it, appreciate the many little highlights of charm that cosmetics impart.

So . . .

Why not encourage your patients to take an interest in their appearance?

Because LUZIER REPRESENTATIVES are trained to help their patrons select suitable cosmetics they can be of indirect service to you and of direct service to your patients.

LUZIER'S, INC., MAKERS OF FINE COSMETICS & PERFUMES

KANSAS CITY, MO.

Drink
Coca-Cola
Delicious and
Refreshing

Pure refreshment

WHEN DEALING WITH CANCER
Consider the Utility, Accessibility and
LOW COST OF RADIUM THERAPY

LEASING PLAN: Equivalent to radium ownership without CAPITAL investment. You keep possession continuously. We pay insurance and upkeep. Fifty milligrams for $22.50 per month; 100 milligrams $40. Larger amounts in proportion. The initial lease is for a period of one year. New radium. Modern platinum containers.

RENTAL PLAN: Any quantity available by special delivery express. Platinum tubes and needles, and plaques, in all dosage range. The basic rate is $14 for 50 milligrams for 30 hours' actual time of application.

PURCHASE PLAN: Radium in all forms available for purchase in any quantity at the lowest price in the history of the radium industry.

RADON: Radon in ALL-GOLD implants at $2.50 per millicurie.

THE COMPLETE SERVICE FOR RADIUM USERS

Telephone RANdolph 8855, or write or wire

RADIUM AND RADON CORPORATION

Marshall Field Annex Building 25 E. Washington St.

CHICAGO, ILLINOIS

INDEX

The Wisconsin Medical Journal

OWNED *and* PUBLISHED *by the* STATE MEDICAL SOCIETY *of* WISCONSIN

A Monthly Journal of Medicine and Surgery

The Council on Scientific Work:

W. S. MIDDLETON, Madison, Chairman
EBEN J. CAREY, Milwaukee
H. A. SINCOCK, Superior
J. A. EVANS, La Crosse
G. W. KRAHN, Oconto Falls

MR. J. G. CROWNHART, Madison, *Managing Editor*

VOLUME XXXVI
JANUARY, 1937—DECEMBER, 1937

INDEX VOL. XXXVI, 1937

Scientific Articles

Page

Amebiasis—Miller 106
Anesthesia; Recent Developments—Rovenstine 984
Appendicitis, Schilling Count in — Schindler, Gnagi & Peden 347
Arterial Disorders of the Extremities, Diagnosis and Treatment of—Hardgrove 358

Blood, Obtaining of, for Serology—Lorenz 364
Blood Sedimentation Rate—Peterman 815

Calculus, Urinary, Modern Management—Kearns 170
Cancer, Colonic, Practical Considerations in Treatment of—Dixon 355
Cancer of Bronchus and Its Treatment—Womack 711
Cancer of Rectum, Treatment of, by Electrocoagulation—Johnson 430
Cardiospasm; Roentgenography Visualization of Treatment with Pneumatic Bag —Fazen & Pfeffer 718
Cleft Palate Repair Technic Affording Better Speech Results—Hyslop 540

Deaf, Problems of the—Tolan 247
Disorders, Functional and Organic, Relative Incidence—Carnes & Washburne 435
Diverticulum, Meckel's, in Sac of Ventral Incisional Hernia; Report of Case—Keeley 733

Edema, Renal, Phases of—Murphy 17
Embolism, Fat; A Case Report of Cerebral Involvement—McCarter 724
Encephalitis with Polyneuritis; Inhalation of Chemical Dust—McCormick 551
Endocrine Problems, Current, in Gynecology—Sevringhaus 543
Enteritis, Regional; Report of Five Cases—Jackson 632
Erysipelas, Treatment of—Fox 528

Fractures, Treatment of, by Use of Wire Fixation—Dieterle 427
Fracture of Carpal Scaphoid —Kuegle 631
Fractures of Elbow in Children—Schulz 913

Page

Heart Disease, Rheumatic, in Childhood—Marsh 906
Hemorrhage, Measuring Tendency to in Cases of Obstructive Jaundice, with Special Reference to Photo-Electric Method—Comfort & Nygaard 727
Hernia, Ambulant Treatment of—Bratrud 34
Heterophoria; Incidence of, in Routine Refractions with Analysis of 2,000 Cases—Martin 186
Hypertension, Use of Cyanates in Treatment of—Barker 28

Indigestion; Surgical Aspects—Eliason 979
Infections, Upper Respiratory, Acute and Subacute —Malone 548
Iritis, Some Factors in the Etiology of—Copps & McCormick 268

Lithiasis, Urinary, Blood Calcium Studies in — Marquardt 177

Measles; Use of Convalescent Serum in Prevention, Modification and Treatment — Hardgrove, Schwartz & King 817
Menopause, Bleeding Before the—Horwitz 87
Menopause, Bleeding After the, Pathological Significance of—TeLinde 521
Molluscum Contagiosum; Report on a Series of Seven Cases—Cole 454

Nephritis from Standpoint of Insurance Companies —Wenstrand & Benton 26

Osteomyelitis, Acute, in Children—Blount 910

Poisoning, Snake Venom, Treatment of—Keeley 534
Poliomyelitis, Early Diagnosis and Medical Treatment of—Tenney 900
Poliomyelitis, Prevention of Disability in—Greene 903
Pregnancy, Early, Bleeding During—Owen 94
Pregnancy, Late, Bleeding in —Harris 101
Prevention Through Periodic Observation—Peterman 895

Page

Prostatic Resection, Transurethral, for Bladder Neck Obstruction — Gundersen 824
Pulmonary Abscess, Treatment of; Review of Thirty-one Cases—Midelfart & Gale 373
Pyuria, Persistent, in Children—Campbell 611

Refraction, Some Clinical Problems in—Prangen 252

Schizophrenia; Insulin Therapy in—Reese 111
Sinuses, Nasal Accessory, Problems Involved in Diagnosis and Treatment of Malignancies of the — Lederer 263
Spinal Cord Injuries from Neurosurgical Standpoint —Cleveland 343
Strabismus, Orthoptic Treatment of—Hitz 258
Syphilis, Precipitation Tests for—Lorenz 993
Syphilis, Primary, Diagnosis of—Stovall 370
Syphilis, Treatment of Prenatal or Congenital—Foerster 987
Syphilis in Wisconsin—Lorenz 188

Tuberculoma of Myocardium; Report of Case—Banyai & Van Hecke 721
Tuberculosis, Atypical; Report of Cases — Stiehm, McCarter & Getz 451
Tuberculosis, Clinical Phase —Coon 829
Traumatism and Foreign Bodies in Urogenital Tract, Diagnosis and Treatment of—Irwin 182
Tumors Affecting the Spinal Cord, Roentgenologic Contributions to Localization of—Camp 621

Urinary Bladder, Extroversion of; Report of Case—Kearns 820
Urinary Bladder, Tumors of —Wear & Kundert 165

Vaccines and Sera, Use of, in Diagnosis, Prevention and Treatment of Dis—ease—Gonce 275
Varicose Veins, General Considerations in the Treatment of—Smith 625

Other Articles

Page

Atlantic City Session of American Medical Association ---------- 564

Beware of Swindlers—Clancy 776

Cancer Campaign of Women's Field Army Given Direction and Assistance by State Society ---------- 300

Congress of Anesthetists, Program of Meeting in Madison, October 29–30 -- 866

Correspondence ---------- 52, 389, 559, 929, 1014

Council on Scientific Work Organized ---------- 301

County Asylum; A Hospital in Fact—Christofferson -- 438

Federal Social Security Act; Unemployment Compensation and Old Age Retirement Payroll Taxes Affecting Physicians as Employers ---------- 43

History, Medical:
- Early History of Dane County Medical Society—Miller -------- 929
- Medical Education in Milwaukee, 1848–1893 —Tallmadge -------- 303

Page

Income Tax Provisions Affecting the Medical Profession
- I. Federal ---------- 119
- II. State ---------- 123

Legislature, 1937:
- Assembly Committee on Public Welfare Recommends Killing for Compulsory Sickness Insurance ---------- 471
- Interim Committee Bill Testimony ---------- 488
- Assembly Floor Discussion on Bill 850 A, Legalizing Voluntary Sickness Insurance Schemes ---------- 568
- Assembly Kills Compulsory Sickness Insurance Bill 63–27 ----- 578
- Assembly Floor Debate on Biemiller Bill Proposing Interim Committee Study -------- 672

Medical Directories—Bureau of Medical Economics, American Medical Association ---------- 942

Midwest Conference on Occupational Diseases and American Association of Industrial Physicians and Surgeons, Notice of Joint Meeting, Detroit, May 3–7 302

Page

Needs for Closer Cooperation Between State and County Institutions—Green ------ 439

News Items and Personals-- 50, 118, 210, 298, 387, 468, 557, 641, 740, 847, 926, 1012

National Tuberculosis Association, Program for Milwaukee Meeting, May 31–June 3 ----------302, 391

Presidential Address—Sargent ---------- 811

President's Page-----44, 114, 203, 292, 382, 462, 554, 638, 736, 918, 1005

Postgraduate Course in Obstetrics and Pediatrics for Southern Wisconsin ----- 301

Postgraduate Courses on "Prevention of Disabilities in Children" Held Throughout State Councilor Districts ---------- 41

Radio Programs ----51, 118, 393

Rosenwald Fund Subsidies-- 132

State Board of Control Medical Program—Hannan ---------- 442

Venereal Disease Program, Governor Appoints Planning Council for -------- 300

Venereal Disease Program in Wisconsin—Guilford -- 457

Authors of Articles

Banyai, A. L., Wauwatosa --721
Barker, M. H., Chicago, Ill.-- 28
Benton, R. W., Milwaukee-- 26
Blount, W. P., Milwaukee -- 910
Bratrud, A. F., Chicago, Ill. 34

Camp, J. D., Rochester, Minn. ---------- 621
Campbell, M. F., New York City ---------- 611
Carnes, M. L., Madison ---- 435
Christofferson, H. H., Colby 438
Clancy, F. J., Chicago, Ill.-- 776
Cleveland, David, Milwaukee 343
Cole, L. R., Madison------- 454
Comfort, M. W., Rochester, Minn. ---------- 727
Coon, H. M., Statesan ----- 829
Copps, L. A., Marshfield---- 268

Dieterle, J. O., Milwaukee-- 427
Dixon, C. F., Rochester, Minn. ---------- 355

Eliason, E. L., Philadelphia, Pa. ---------- 979

Fazen, L. E., Racine ------- 718
Foerster, H. R., Milwaukee- 987
Fox, M. J., Milwaukee ----- 528

Gale, J. W., Madison ------ 373
Getz, H. R., Madison ------ 451
Gnagi, W. B., Jr., Monroe-- 347

Gonce, J. E., Madison ----- 275
Green, M. K., Mendota ---- 439
Greene, H. L., Madison ---- 903
Guilford, H. M., Madison -- 457
Gundersen, A. H., La Crosse 824

Hannan, J. J., Madison ---- 442
Hardgrove, Maurice, Milwaukee ----------358, 817
Harris, J. W., Madison ---- 101
Hitz, J. B., Milwaukee ----- 258
Horwitz, J. J., Milwaukee -- 87
Hyslop, V. B., Madison ---- 540

Irwin, Robert, Milwaukee -- 182

Jackson, A. S., Madison ---- 632
Johnson, J. A., Minneapolis, Minn. ---------- 430

Kearns, W. M., Milwaukee ----------170, 820
Keeley, J. L., Madison --534, 733
King, L. F., Milwaukee ---- 817
Kuegle, F. H., Janesville --- 631
Kundert, Palmer, Madison-- 165

Lederer, F. L., Chicago, Ill.- 263
Lorenz, W. F., Madison ---------- 188, 364, 993

McCarter, Janet, Madison-- 451
McCarter, J. C., Madison--- 724

McCormick, G. L., Marshfield 268
McCormick, S. A., Madison- 551
Malone, J. Y., Milwaukee -- 548
Marquardt, C. R., Milwaukee 177
Marsh, H. E., Madison ---- 906
Martin, H. G., Milwaukee -- 186
Midelfart, P. A., Madison -- 373
Miller, J. L., Chicago, Ill. -- 106
Miller, W. S., Madison ----- 929
Murphy, F. D., Milwaukee-- 17

Nygaard, K. K., Rochester, Minn. ---------- 727

Owen, J. D., Milwaukee --- 94

Peden, Eula, Monroe ------ 347
Peterman, M. G., Milwaukee ----------815, 895
Pfeffer, T. J., Racine ------ 718
Prangen, A. de H., Rochester, Minn. ---------- 252

Reese, H. H., Madison ----- 111
Rovenstine, E. A., New York City ---------- 984

Sargent, J. C., Milwaukee -- 811
Schindler, J. A., Monroe --- 347
Schulz, Irwin, Milwaukee -- 913
Schwartz, A. B., Milwaukee- 817
Sevringhaus, E. L., Madison 543

Page
Smith, F. L., Rochester, Minn. 625
Stiehm, R. H., Madison 451
Stovall, W. D., Madison 370
Tallmadge, G. K., Milwaukee 303
TeLinde, R. W., Baltimore, Md. 521
Tenney, H. K., Madison 900
Tolan, T. L., Milwaukee 247
Van Hecke, L. J., Wauwatosa 721
Washburne, A. C., Madison 435
Wear, J. B., Madison 165
Wenstrand, D. E. W., Milwaukee 26
Womack, N. A., St. Louis, Mo. 711

Editorials

American Foundation Studies 289
County Secretary 553
Distribution of Ureteral Pain 1002
Doctors Start an Inquiry 1003
Early Diagnosis Campaign 288
Fight Cancer with Knowledge 205
Heat Exhaustion 290
"His Own Garden" 636
Honors Richly Deserved 552
House of Delegates 381, 637
Important Procedure 113
Nephrostomy 380
Official Reports 637
Ophthalmologist 836
"Oscillate to Extremes" 463
Patient's Family 553
Practitioner and Mental Disease 202
"Publicity" 112
Scientific Exhibits and the Hall of Health 734
Sulfanilamide 462
Sufanilamide in Treatment of Gonorrhea and Other Infections of Urinary Tract 916
Vitamin D Toxicity 43
Water Balance 42
Why So Excited? 1004
"Wisconsin's Hall of Health" 834

Activities

Annual Meeting, 1937:
- Program Announcement 561
- Scientific Program 643, 745
- Program Synopsis 649, 750
- Guest Speakers 742, 743, 744
- "Hall of Health" 648, 760, 854
- Scientific Exhibits 652, 753
- Technical Exhibitors 669, 757
- Registrants 858
- Report of Meeting 849
  - Committee Appointments 851
  - House of Delegates 850, 1016

Committee Reports:
- Advisory Committee on Crippled Children 660
- Committee on Cancer 664
- Committee on Coordination of Medical Service 664
- Committee on Health and Public Instruction 658
- Committee on Medical Defense 657
- Committee on Medical Economics 667
- Committee on Mental Hygiene and Institutional Care (Preliminary Report) 666
- Committee on Necrology 661
- Committee on Prevention of Goiter 659
- Committee on Public Policy 655
- Committee on Scientific Work 659

Council Meetings:
- Proceedings of January Meeting 128
- Supplementary Report 654
- Proceedings of September Meeting 940
- Proceedings of November Meeting 1036

County Society Meetings:
- Barron–Washburn–Sawyer–Burnett 555, 1006
- Brown–Kewaunee–Door 383, 465, 1006
- Calumet 45, 1006
- Chippewa 45
- Clark 115
- Columbia – Marquette – Adams 45, 206, 465, 846, 923, 1006
- Crawford 923, 1006
- Dane 383, 555, 924, 1006
- Dodge 45, 739, 1006
- Eau Claire–Dunn–Pepin 45, 206, 383, 465, 924, 1006
- Fond du Lac 45, 206, 293, 465, 1007
- Grant 1007
- Green 45, 1007
- Green Lake – Waushara 383, 739
- Jefferson 45, 383
- Juneau 115, 1007
- Kenosha 206
- Kenosha–Racine–Walworth 739
- La Crosse 45, 555, 640, 924
- Langlade 46, 206, 924
- Lincoln 206, 924
- Manitowoc 293, 924
- Marathon 1007
- Marinette–Florence 46
- Marquette 1007
- Milwaukee 46, 115, 207, 293, 383, 465, 739, 924, 1007
- Monroe 924
- Oconto 465, 1008
- Oneida–Vilas 924
- Outagamie 293, 383, 465, 924, 1008
- Outagamie and Waupaca 115
- Polk 207, 293, 1008
- Pierce–St. Croix 925
- Portage 293, 925
- Price–Taylor 46
- Racine 1008
- Richland 46
- Rock 207, 383, 465, 925, 1008
- Sauk 46, 293, 1008
- Shawano 115, 207, 465
- Sheboygan 46, 207, 465, 1008
- Trempealeau – Jackson–Buffalo 46, 465, 641, 846, 1009
- Vernon 115
- Washington–Ozaukee 293, 384, 555
- Waukesha 46, 115, 293
- Waupaca 1009
- West Allis 1009
- Winnebago 207, 293, 641, 1009
- Wood 384

Other Societies:
- First Councilor District 1009
- Fourth Councilor District 466
- Fifth Councilor District 925
- Sixth Councilor District 293, 466, 555
- Seventh Councilor District 555
- Ninth Councilor District 115, 466, 641, 1009
- Tenth Councilor District 846, 925
- Eleventh Councilor District 740
- Appleton Medical Society 47
- Association of Clinic Managers 926

Page
Milwaukee Academy of Medicine 47, 115, 207, 294, 384, 466, 925
Milwaukee Neuro-Psychiatric Society 294, 384, 555, 1009
Milwaukee Oto-Ophthalmic Society 207, 466, 925, 1009
Milwaukee Pediatric Society 207
Milwaukee Society of Clinical Surgery 207, 294, 466, 1009
Milwaukee Surgical Society 384
Section on Radiology 555

Page
West Allis Physician's Club 294
Wisconsin Anti-Tuberculosis Association 294
Wisconsin Urological Society 466

House of Delegates:
Amendments to Constitution and By-Laws Pending Before 651
Names of Members 562, 650, 752
Attendance, Milwaukee, 1937 1034

Page
Proceedings 850, 1016
Program of Early Session 743

Membership of State Society 1052

Officers and Committees of State Society, 1938 1038

Reports of Officers and Committees to 1937 House of Delegates 654
Supplementary Report of the Secretary 1041

Woman's Auxiliary 47, 116, 208, 294, 384, 467, 556, 639, 737, 837, 921, 1010

Book Reviews

Allergic Diseases 218
Allergy, Clinical 870
American Medical Association, Council on Pharmacy and Chemistry Reports, 1935, 1936 60, 782
Anesthesia, Technic of Local 686
Applied Dietetics 58
Autopsy 396

Bailey's Textbook of Histology 60
Bright's Disease and Arterial Hypertension 60
Business Side of Medical Practice 950

Cardiac Glycosides 784
Cataract, Senile 584
Chemical Procedures for Clinical Laboratories 56
Cholera, Snow on 216
Clinical Reviews of Pittsburgh Diagnostic Clinic 868

Dermatology, Introduction to 952
Dextrose Therapy in Everyday Practice 952
Diabetes 496
Diathermy, Short-Wave 686
Dietetics for the Clinician 218
Diseases of Infants and Children 398

Endocrinology in Modern Practice 214

Fundamentals of Human Physiology 216

Handbook of Ambulant Proctology 582
Handbook of Health Education 396
Handbook of Orthopaedic Surgery 496
Health Education Workbook 394
Healthy Bodies 56
Healthy Growing 55
Healthy Life Series, Vols. 3 and 4 220

Infantile Paralysis and Cerebral Diplegia 786
International Medical Annual 214, 778

Keeping Your Child Normal 218

Laboratory Diagnosis, Clinical 584
Laboratory Diagnosis of Syphilis 867
Laboratory Manual of General Physiology 867
Light Therapy 400

Management of Obstetric Difficulties 584
Manual of Surgery, Rose and Carless 952
Materia Medica, Pharmacology, Therapeutics and Prescription Writing 1066
Materia Medica, Toxicology and Pharmacognosy 496
Medical Classics 398
Medical Clinics of North America 216
Medical Formulary 684
Medical Morals and Manners 496
Medical Science, An Introduction to 400
Medical Urology 867
Mentally Ill in America 778
Microbiology and Pathology for Nurses 58
Modern Treatment and Formulary 60

Neurology, Basis of Clinical 952
New and Nonofficial Remedies, 1937 782
Nutritive and Therapeutic Values of the Banana 56
Nutritive Aspects of Canned Foods 867

Obstetrics and Gynecologic Nursing 1064
Operative Surgery 584
Ophthalmoscopy, Retinoscopy and Refraction 584

Pathology (Krumbhaar) 952
Pathology (Piette) 55
Patient and the Weather 870
Pediatric Dietetics 586

Personal Hygiene 784
Physical Diagnosis (Major) 400
Physical Diagnosis (Sutton) 784
Physical Therapeutic Methods in Otolaryngology 400
Physical Therapy in Arthritis 1066
Practice of Medicine 58
Preoperative and Postoperative Treatment 398
Principles and Practice of Clinical Psychiatry 954
Principles of Biochemistry 214
Principles of Chemistry 56

Rockefeller Foundation, Annual Report, 1935 58

Skin Diseases in Children 398
Supplements to the Pharmacopoeia of the United States 868
Surgical Clinics of North America 216
Surgical Pathology of the Thyroid Gland 586
Surgical Treatment 780
Synopsis of Digestive Diseases 780
Synopsis of Genitourinary Diseases 1066
Synopsis of Gynecology 868
Synopsis of Pediatrics 494

Textbook of General Physiology 784
Textbook of Medicine 138
Textbook of Obstetrics 56
Textbook of Surgical Nursing 950
Treatment by Diet 868

Why We Do It 784

Year Book of General Medicine, 1936 216
Year Book of General Surgery, 1936 138
Year Book of Obstetrics and Gynecology, 1936 870

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

The University of Wisconsin curriculum for candidates for the degree of Doctor of Medicine is divisible into three parts, premedical, preclinical and clinical. Three years are required for the premedical work, and two years each for the preclinical and clinical.

Premedical Requirements The premedical part of the curriculum comprises college work required prior to matriculation in the Medical School and extends through three academic years. The required subjects for entrance to the Medical School include college work in English, Latin, French or German, physics, chemistry and biology. A degree of Bachelor of Arts or Bachelor of Science, toward which the first year in the Medical School applies, will be granted at the completion of the first year in the Medical School.

Medical Course The medical course itself is arbitrarily divided into the preclinical and the clinical courses of two years each. The preclinical period includes work in the basal sciences, anatomy, histology, neurology, physiology, physiological chemistry, pathology, bacteriology, pharmacology, hygiene and diagnosis. The clinical period comprises the didactic and clinical instruction of the third year in the wards of the Wisconsin General Hospital, whereas the fourth year of the course is devoted to practical instruction in the Wisconsin General Hospital and affiliated institutions.

Courses in nursing are offered in the School of Nursing affiliated with the Medical School. A residential course of 27 months is offered in the Wisconsin General Hospital to those who have completed a year of specified work in the College of Letters and Science. This course leads to a certificate of graduate nurse. A residential course of 27 months is offered to those who have completed three years of college work in specified subjects either in the College of Letters and Science or in the Department of Home Economics. These courses lead to a certificate of graduate nurse and to a B. S. degree.

Opportunity is offered for graduate work in the preclinical and the clinical medical sciences and in hygiene and public health. For further information address William S. Middleton, Dean, Medical School, Madison, Wis.

MARQUETTE SCHOOL OF MEDICINE

Requirements for Admission — A minimum of sixty-four semester hours and sixty-four quality points of such college work as would be acceptable to an approved college of liberal arts or a recognized university towards the Bachelor's degree, and must include the following subjects: biology, general chemistry, organic chemistry, English, French or German, physics, other non-science courses.

Instruction — The duration of the course leading to the degree of Doctor of Medicine is five years, the fifth year being devoted to hospital internship. The school year begins about the first of October and ends in the early part of June. The aim is constant coordination of the basic sciences with the clinical subjects. In other words, intradepartmental and interdepartmental correlation are emphasized throughout.

Clinical Facilities — Milwaukee County General Hospital, Milwaukee County Emergency Hospital and Dispensary, Milwaukee Children's Hospital and Dispensary, Milwaukee County Insane Hospitals, Acute and chronic, St. Joseph's Hospital, South View Hospital for Contagious Diseases, Misericordia Hospital, Muirdale Sanatorium for tuberculosis, Mt. Sinai Hospital Dispensary, Marquette Eye Clinic, Marquette Eye, Ear, Nose and Throat Hospital, Public Health field work.

For further information address:

DEAN, MARQUETTE UNIVERSITY SCHOOL OF MEDICINE
561 North Fifteenth Street
Milwaukee, Wisconsin.

—Courtesy Abbott Laboratories

THEY MEET A FRIEND

The many educational and service projects made possible by Christmas Seal funds implant good health habits in Wisconsin's children early in life. Boys and girls soon get the true picture of the tremendous part the medical profession plays in their lives. The family physician becomes the friend who knows how to help—and does.

Christmas Seals!

Buy and Use Them

Wisconsin Anti-Tuberculosis Ass'n.

1018 N. JEFFERSON ST. MILWAUKEE, WIS.

Rogers Memorial Sanitarium

Formerly Oconomowoc Health Resort
OCONOMOWOC, WIS.
Telephone 448

Founded in 1907 for the Scientific Treatment of

NERVOUS and MENTAL DISEASES

Hydrotherapy, Occupational Therapy and Re-educational Methods Applied.

Fireproof Building
Isolated Psychopathic Department for Acute Mental Cases
Separate Cottage for Convalescent and Rest Cases
Booklet on Request

Resident Physicians
JAMES C. HASSALL, M.D.
Medical Director

OWEN C. CLARK, M.D.
Assistant Physician

Board of Trustees
JAMES C. HASSALL, M.D.

T. H. SPENCE
MITCHELL MACKIE
MACKEY WELLS
Milwaukee, Wisconsin

PETER BASSOE, M.D.
Chicago, Illinois

W. S. MIDDLETON, M.D.
Madison, Wisconsin

Milwaukee Office: 1330 Wells Building
Tuesday Mornings by Appointment Telephone Daly 1441

MILWAUKEE SANITARIUM Wauwatosa, Wis.

For NERVOUS DISORDERS

Chicago Office: 1823 Marshall Field Annex
Wednesday, 1–3 P. M.

Maintaining the highest standards over a period of fifty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff
Rock Sleyster, M.D., Medical Director,
William T. Kradwell, M.D.
Merle Q. Howard, M.D.
Carroll W. Osgood, M.D.
Benjamin A. Ruskin, M.D.

Attending Staff
H. Douglas Singer, M.D.
Arthur J. Patek, M.D.

COLONIAL HALL
One of the 14 Units in "Cottage Plan".

DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

Legislative Committee Hearing on Medical Cooperative Bill

ON THURSDAY afternoon, May 6, bill 850, A, providing for the establishment of cooperatives for the delivery of medical and hospital services was heard before the Assembly Committee on Public Welfare. Those serving on this committee are: Assemblyman Kiefer, Milwaukee, chairman, Kryszak (Milwaukee), Biemiller, (Milwaukee), Fritz, (La Crosse), Hipke, (Chippewa), Dr. Barber, (Marathon).

This bill was preceded by six bills of varied character. Assemblyman Biemiller, author of the bill, appeared before the committee and gave the following discussion.

Mr. Biemiller

(Member of the Committee on Public Welfare—Author of the Bill.)

"Mr. Chairman and Members of the Committee:

"Bill 850,A is designed to permit what is commonly known as group practice medicine either on the budgetary plan or the formation of cooperative associations to furnish medical care for its members. The bill is in line with a practice beginning to develop throughout the country. I suppose that more than anything else the report of the Committee on the Costs of Medical Care in 1932 centered the attention of the entire population of the United States on the problem of the costs of medical care. We are all familiar with the fact that there has been all kinds of grumbling and rumbling going on in regard to what is considered the high cost of sickness at the present time. This is particularly true in case of catastrophic illnesses which descend upon families and which cost $300, $400, and $500. Such illnesses obviously are major catastrophies. To families of small income they virtually cripple them not only for one year, but for many years.

"This bill is simply an enabling act. It is not a mandatory bill. It is an enabling act which will permit group practice of medicine or the formation of cooperative associations. Some people have asked, 'Why can't we do these things right now?' and they should read this bill. There are several points on this matter. There are at the present time several such plans operating in Wisconsin or in the process of formation, but in all such cases the people who are interested in those plans are fearful of being taken into court and their plans knocked out. In the first place an attempt was made to insist that such plans come under the provisions of the insurance law, which require a $200,000 deposit to operate. There has been a ruling of Attorney General Finnegan to the effect that these plans are not insurance. But we are asking that this matter be cleared up once and for all. There is a question that Chapter 350 of the Laws of 1935 might prohibit the formation of such plans. That charge was originally made against one plan operating in Milwaukee, but was later withdrawn. Yet the possibility is always there. The State Medical Society interprets Chapter 350 to mean that the State Medical Society has the exclusive right to say whether such plans shall operate or not. This bill will make sure that they can operate—will make that point certain.

"In the third place, doctors interested in such plans are fearful of two things:

1. That they will be expelled from the Medical Society if they go into such plans, and that their reputations will be jeopardized.

2. Furthermore, doctors are afraid that they will be barred from the hospitals if they operate under such plans because of the control which the State Medical Society holds over hospitals. This has happened in certain cases in Milwaukee. It is likely to happen in other cases if the present situation prevails. One of the significant provisions of this bill is that no hospital may deny a physician the facilities of a hospital because he happens to be engaged in group practice under budgetary plans or cooperative plans.

"The purpose of this bill, then, is primarily to make perfectly legal certain plans that are now operating or about to be put into operation. I am not going into the details because there are others here this afternoon who can tell you about them. There are one or more points I want to call to your attention. I want to point out, for instance, that the majority report of the 1932 Committee on Costs of Medical Care recommended the extension of voluntary health insurance through group clinics which this bill provides for. The majority report was signed by eight physicians in private practice, five in public health, five social scientists, eight representatives of pharmacists, nurses, etc., four M.D.'s, and nine who represented the public on that committee, including Chairman Dr. Ray Lyman Wilbur, former president of the American Medical Association and former college president, and unless I'm misinformed he is again engaged in that work, and Cabinet Member under Herbert Hoover. Although they thought the claims made were too optimistic, and threw up certain restrictions which they thought should be placed around it, they did not condemn the principle of voluntary health insurance. The report of that committee was one of the most significant things. Many months of research were put into the study, and I think you will agree that it stands up under the light of almost any kind of an investigation.

"All the evidence that we have leads us to the conclusion that voluntary health insurance will work. I will cite one illustration, which is the best in the country—the Ross–Loos Clinic of Los Angeles, California, which has 20,000 subscribers representing altogether about 58,000 people. It gives its services at an average cost to each subscriber of $2.68 per month. It gives a full and complete service, has one of the most finely equipped laboratories in the country. There are 40 physicians on the staff at present, who have regular hours, periodic vacations with pay, with leaves for further study, and on the whole they enjoy incomes slightly above the average of doctors' incomes.

"I don't understand, to be quite frank, why the doctors are opposing this particular type of practice. I want to make it perfectly clear that this scheme in no way interferes with the purely scientific aspects of the medical profession. I have no quarrel with the scientific aspects of the medical profession. I have nothing but admiration for the advances that have been made by the profession; I have great respect for them in that field. They are dealing with the scientific aspects and all we are trying to deal with are social and economic aspects of the costs of medical care. This bill is to provide the means by which people may voluntarily budget their costs. To put it in another way—take the technique of insurance with which we are all familiar and apply it to this problem. One plan with which we are familiar charges $1 per month for a single person, $2 for a couple, and $3 for a family regardless of size. This plan furnishes full medical care. This also enhances preventive medicine because more people are inclined to have periodic health examinations. They go early and thus are treated when they should be treated. Diseases are treated on the basis of need and not on the basis of what the pocketbook may be like at a given time.

"Doctors will tell you that there are no people who cannot get medical attention. Substantially I agree with that statement. I think that is true. If the person without funds goes to a doctor he can get medical care. I know the doctors do a tremendous amount of charity work. But the very fact that they have such high ideals blinds them to a situation which does prevail,—a situation which prevails among people of moderate incomes. The population can be divided into three classes. The upper 15% from the standpoint of income, who get all the medical care they need. Secondly, the lowest 20%, who get reasonable medical care. Then there is the 65% of workers, small business men, persons with medium incomes, to whom this bill is primarily directed. Those people go to a doctor, they are out of luck, they can get medical care but they don't want to ask for charity; they want to pay for things. I think every member of this committee knows many people who have neglected illnesses, who have suffered very severely from diseases because they didn't want to go to a doctor and ask for free care. From this re-

port on the cost of medical care, if I read it correctly, this one fact stands out clearly, that the average cost of medical care can be met by the average family if the load is distributed. To insure against it, put money into a pot, then we can meet this problem without an undue burden. That is the thing we are trying to do in this bill. I repeat in closing that this bill is simply an enabling act. It makes perfectly clear that such schemes may be brought into operation and may operate without fear of prosecution from the Medical Society, the insurance commissioner, etc., who might try under our present laws to interfere with them.

"I understand that some groups, budgetary plans, cooperative associations are also frightened under the present law. They haven't yet been interfered with, yet they are afraid. The Cutler–Hammer Company, in Milwaukee, which plant has a voluntary health scheme of contract practice where physicians are employed by the plant, is also worried. It is quite possible that somebody might prosecute them. The Employees Mutual Benefit plan of the T. M. E. R. & L. Co. has a purely voluntary health system. It is a voluntary health benefit system. They, too, are worried that they might be knocked out. That is the major reason for bringing this bill in, to clear up that situation once and for all, and to make sure that Wisconsin will keep pace with other states in experimenting in this field. I can understand the opposition that arises to compulsory health insurance laws, but I frankly do not understand the opposition that arises to a simple enabling act which is in perfect accord with the American tradition of experiments for allowing people under this bill to do the things that they might want to do themselves. We are not forcing anybody to do anything. We say, 'If you want to do it, go ahead, we will be glad to learn from your experience.' We want to make sure that these experiments that are now under way are carried on further and we can all profit by the experience. I am also authorized by Mr. Kenneth Homes, president of the Farmers' Union, to place his name on record for the bill."

Rev. Buckley

Pastor, First Methodist Church, Superior, Wisconsin

(Representing Cooperative Health Ass'n., Superior Federation of Labor, First Methodist Church of Superior, West Wisconsin Conference Methodist Episcopal Church, West Conference Chairman of Foreign Relations and Member of Conference of Social Service Committee, Superior, Wisconsin.)

"You are a fine group. I would like to ask you a question. Suppose now, that this might happen to you. Suppose you lived 25 miles from your town. Suppose your wife got sick. Suppose you had 14 children. Suppose your wife got sick. You love her—you love your children. You know that if she passes away it will be a tragedy. It costs $25 to get a doctor and you can't afford it, and after all, doctors now require cash. When you call them they ask, 'Do you have the money?' You are not able to pay $25. Your wife gets worse. There finally comes a time when she is called beyond. Now, friends, what would you do under circumstances like that? You are a father and you are a husband—what would you do? That happened in Foxboro on March 6. The mother of 14 children passed away because she could not get medical care. Fourteen children. That is a social crime. What are those children going to do for a mother? This bill 850,A makes provision so that this will not happen. These people are of the finest sturdy stock that America has produced. They want to be self-respecting. They are not asking for charity. These are the 65% of which Mr. Biemiller has spoken.

"Then suppose you were younger. Suppose one little one had already come into your home and blessed it, and then the second was expected, and you were on a W. P. A. job. In Superior they pay $55 a month—$40 in the towns. Suppose you lived in the city and were getting $55 a month. Then you go out for a doctor—you call in a neighbor after the pain starts and go out to get a doctor. You go to one doctor and you say, 'Doctor, listen. My wife—we are expecting now, and I want you to come.' The doctor asks, 'Mr. J., where are you employed?' 'I am a W. P. A. worker.' 'I am sorry, but I am just too busy; I am sorry I can't come.' You go to

Number 2, Number 3, Number 4, Number 5, all afternoon looking for a doctor, and you know your wife is home and may be dead by this time, and you go home completely licked at dark. This is right before Christmas time. You are not able to get a doctor. You don't have $25 to pay. How would you feel about that? How would you feel, friends? These are serious questions we need to answer. This happened in Superior, Wisconsin, just before Christmas time. And the young man came back completely licked, and the ladies stayed with her, one of them president of one of the best-known Parent-Teachers' Association in Wisconsin. He went back home and his wife was in a serious condition. Then this woman suggested calling the police. They sent an ambulance and took his wife to a hospital, and the baby was born thirty minutes after they got there. This happened just before Christmas in Superior, Wisconsin. We are letting mothers die, letting little children die, just through such treatment as that. What are we going to do about it? Are we going on like we are now and say, 'Well, that is just too bad, that's just too bad'?

"But, friends, it doesn't do any good to talk unless we act—unless we provide a way so that these fine people can get the care they need. 850,A provides a way. They do not want charity. People are not asking for charity. They are asking for a way to help themselves. They are fine sturdy American stock. Is that fine sturdy blood going to carry us through in developing into a great and fine nation? This is not going to be done by our offering charity and breaking down the personality and self-respect of the people. But it's going to be done by our providing a way for them to pay for the care they need.

"I would like to say a good word for the doctors in our county—they are fine men, fine gentlemen. Those with whom we are acquainted are public-spirited. But there is a limit to the charity one can give. A physician in one of the large hospitals in Superior was asked how much he collected of his bills. He was asked, 'Do you collect 50% of your bill?' He replied, 'No, I don't collect 50%.' 'How much do you think you do collect—45%?' He thought and said, 'I might collect 45% of my accounts.' Now, friends, it takes 35% of the cash income to pay the overhead expenses,—travel, nurses, office expense, and all that. There is a limit to the amount of service he can give when the expenses are so much. I was talking with one and he says he collects around 30%. There is a limit to this, so that when they go out into the country, many of them are demanding cash. It takes money to go out into the country and make the calls. In Douglas County and the trade territory of Superior, the following charges prevail:

Superior — $8 to $10 — $1 a mile one way. Sometimes it costs $15 for a single call.
Foxboro—$25.
Brule—$25 up.
Iron River—$30 up.
Out from Gordon—$40 up.

Then at one of our directors meetings one friend told us about one of the men out there calling a doctor. A friend next door to them was seriously ill. He called a doctor. How much did he pay? Sixty-two dollars for the doctor's call. This was at Port Wing, Wisconsin.

"Now can you imagine our farmers paying that amount with what they make on their milk? These figures we received from the largest milk pool in the dairy county. Annual cash income:

1934	$579.44
1935	638.19
1936	777.55

Out of that these last two years they have had to buy feed. One fine young Scandinavian farmer said to me, 'My father and I are on the same farm and we worked hard last year and we made $450.' Both had families. Now, friends, you can see out of that much, out of $450 — $225 a family, where are they going to have money for medical care? How can they call a doctor? Doctors' calls cost from $10 to $62. It just isn't in the picture at the present time, is it? And yet they love their loved ones just as much as you and I love our loved ones. They need medical care. Under Bill 850, A this can be provided.

"I am a minister and in the past I have been called upon to say, 'Your loved ones will never come back.' I know it has hurt you just as it has hurt me when you have been to a funeral of dear friends and you knew that if they had gotten the proper care they would have been living today. I am thinking of a case of a young man in Superior — Lawrence.* He is a fine citizen of Superior—a mill worker. But the mill doesn't work steadily. He has three children — a little daughter who sang a solo at our exercises. But Lawrence* could not afford medical care. He was not eligible to go on relief. He worked as long as he could, put off going to a doctor. The doctor told him when he did go that he should go to a hospital. He said, 'I can't afford to go to a hospital,' and kept on working. The doctor charged him $2 a call. Finally he got sick in bed. They took him to a hospital and Lawrence* never did come home alive. The doctor thought he didn't want to get well. He left a wife and three sweet children. The oldest daughter sings, but now she has to scrub and she has done her part in supporting the family. She now has a small job on the W. P. A. and has to leave the children all day. Lawrence* would be living today if he had had the opportunity to get medical care. Under 850, A Lawrence* and our fine Scandinavian farmers and those living in cities, workers for small salaries, can get care. Where we make it possible for them to pay regularly so that they won't run in debt, we can build their self-respect and not tear down their personalities by offering them charity. According to the Milbank study we only spent in the United States 1.4% of the amount we spent on medical care on preventive medicine. The other 98.6% was spent on curative medicine. If you turn that around and have it so that people can pay and can have care when they need it, when they are feeling a little bad, they can get well without losing a day's work. What home is a proper home when the mother is sick or when the wife is down in bed? You have had it happen in your family."

* Reporter not certain of name given by Rev. Buckley.

Mr. Kiefer: I must ask you to bring your talk to a close because there are other people who would like to be heard.

Rev. Buckley: Thank you very much. I just want to repeat that it is the human element we wish to exercise in this matter of Bill 850, A.

Gerald P. Hayes

Attorney, Milwaukee
(Counsel for Milwaukee Medical Center)

"Mr. Chairman and Members of the Committee:

"I have been interested in this subject for approximately a year and a half. I mean by that, that I have been intensely interested in it for that time. I am an attorney and I was drawn into a proposition of what may be termed socialized medicine by reason of my representation of certain men, who at the present time, in Milwaukee, are involved in difficulties with organized medicine. I am heartily in favor of all the provisions of this bill and I will state my reasons briefly.

"The profession of surgery and medicine, as other speakers this afternoon have said, and about which there is no doubt, and which needs no eulogy from me, has made marvelous advances scientifically and in the practice of the profession. The benefits that accrue to a people from the science of medicine and surgery are of a social nature, are of a public nature. The public is entitled to them. But organized medicine today says, as they have said here in the state of Wisconsin, that if a doctor—one of its members —if a member of the Medical Society in Wisconsin today, as the law now stands according to the interpretation of the law by organized medicine, undertakes to engage in a type of contract practice whereby for a stipulated sum, payable in advance monthly; if a doctor undertakes to give to patients the marvelous benefits and advantages that should accrue to that patient by reason of the advancement of the science of surgery and medicine, organized medicine says that doctor is not fit to belong to it [*Ed. Note—State Medical Society of Wisconsin*] because organized medicine says that it is a type of practice that is contrary to sound public policy.

"Now, whether organized medicine realizes it or not, or whether organized medicine cares to realize it or not, this type of practice is on its way, and it is going to be here soon all over the United States of America, and why? Because this type of practice offers the people in low income groups the opportunity to receive the benefits of the science of medicine and surgery at a cost that they can afford to pay. And in my interest in the subject—my study of it, I am not able to find one single reason that is plausible, that organized medicine puts forward, which says that because a man receives high class, efficient medical services at a price he can afford to pay, that that is contrary to sound public policy, and that is what organized medicine in this State says today.

"Now, I am convinced that the type of practice which is authorized by 850,A is not in any sense a violation of the insurance laws of Wisconsin. I am also convinced that the type of practice which this bill authorizes is not in any sense a violation of the present chapter of the Wisconsin laws known as Chapter 350 of the Laws of 1935. I am convinced that any doctor today who desires to enter this type of practice may do so knowing he is on the right track socially and knowing also that he is not violating the law in any way. But I think it is important that this bill pass—that it receive the favorable consideration of this committee for this reason: If this bill becomes a law it will eradicate from the state of Wisconsin a situation whereby today doctors that I know of are afraid to enter this type of practice although they realize its benefits and realize the remarkable advantages, but they are afraid to enter it—why? Because as soon as they enter it, they know, if organized medicine in Wisconsin is consistent, these doctors will be immediately excluded from their membership in organized medical societies and membership in these societies is important.

"Another thing. People today in Wisconsin are loath to engage doctors in this type of work because they know that if they undertake to have this work performed upon them, upon this basis, by doctors of recognized ability, they are jeopardizing the right of doctors to belong to the medical societies. The reason why this bill should pass is because, although doctors may engage in this work for the benefit of the people, and after all, that is the test of the fairness or of the justness or rightness of this bill, the people know that if they permit themselves to have this type of work done as would be provided by 850,A there is serious doubt in their minds as to whether or not their doctors, if hospitalization is needed, can get them into hospitals. As one speaker has said, the control which organized medicine exercises over the hospital facilities of the state of Wisconsin is such that they can pretty well tell any hospital in this State whether or not the patients of these doctors may be admitted therein. If you have any doubt about that statement, I say to your committee that I am in a position to prove it. This whole bill does nothing, authorizes nothing, legalizes nothing that is not being done today in Wisconsin on a broad scale. This type of contract practice is really needed for under the proceedings taken in executive session of the House of Delegates of the Medical Society, an attempt will be made ultimately, if organized medicine is consistent, if it follows its own deliberations, if this legislation does not pass, to attempt to put the finger of estoppel upon all the people in Milwaukee County who are enjoying this type of medical and surgical service and who have been enjoying it for years. This bill is nothing new. It merely puts the stamp of approval of the legislature on something that is legal, that is social, and upon something that sooner or later is going to be the generally accepted type of medical practice in this country.

"In closing my brief remarks I again say to you that I am unable to understand and I am unable to find, to discern any argument which says that if doctors are in a position to give competent medical and surgical service to people of low income groups at a price those people are able to afford, I cannot for the life of me understand why or how that is contrary to sound public policy and if organized medicine says it is, this bill says it is not, and in my opinion this bill should be passed so that it can be made possible for

the state of Wisconsin and for its people without any question to enjoy the benefits of this service without fear on the part of doctors, without the fear that they are going to be penalized."

(Discussion following Mr. Hayes' statement.)

Mrs. Kryszak (Assemblywoman — Milwaukee): Can you tell me of any association in Milwaukee conducting the group plan?

Mr. Hayes: The Milwaukee Medical Center.

Mrs. Kryszak: Don't you think there would have to be a limited amount of treatment? I know there is when a limited amount of county physicians are attending sick people. I have heard people complaining that when they get this service from the county they are limited in amount.

Mr. Hayes: This has nothing to do with the county.

Mrs. Kryszak: I believe this cost amounts to $2 or $2.50 a month.

Mr. Hayes: Thirty-six dollars covers the whole thing. This bill does not set up any plan of operation. If you want to know how certain plans are operating, I can tell you. This bill has nothing to do with any particular plan. Under this bill it merely puts the stamp of approval of the state of Wisconsin upon a type of practice. That is all it does. The doctors are limited—they are doing the best they can and are doing a good job. There is no question about that.

Mrs. Kryszak: There would have to be a limited amount of service. Maybe they would need six months' attendance for the $36. Can a physician afford this?

Mr. Hayes: Yes, it has been proved economically that he can afford it. From the standpoint of the doctor himself, it has been proved that if this were generally practiced, the doctor would be fairly well off so far as the collection of his pay was concerned. Someone said this afternoon that the matter of collection of fees by doctors is one of the most serious parts of their business today, and yet they are good-hearted enough to take it because they haven't any other means of solving it under the system under which they operate.

I thank you.

Chairman Kiefer: Is there anyone else who wishes to appear in favor of 850,A.

J. D. Semrad

(Representing Farmers Joint Legislative Committee, Blue River, Wisconsin.)

"We as a farmers' union have had our eyes on this for some considerable length of time simply because of our connection with the Elk City organization, which has had a considerable amount of experience along this line. Wisconsin is very much in arrears. It has been slack in making it possible to give this cooperative medical attention. I want to call your attention to the state of Oklahoma. Our organization reached into that state and for some time past they have what we call a Farmers' Union Cooperative Hospital. That hospital has been doing wonders. If I had the exact figures, I am sure you would find some of the accomplishments startling. I am sorry I haven't the material with me. Like the previous speaker I do not care to go into any lengthy discussion relative to the exact amount that it might cost, but as nearly as I can remember, the complete medical service of the entime family that all members of the cooperative hospital in Oklahoma, costs somewhere in the neighborhood of $9 per year per family. That is a tremendous reduction in the cost of medical service to a family. The reason that this could be done is this. From the large membership they were able to build the hospital—the fees or dues have paid for this institution; there is always ready cash for the physician who is contracted by the association to give this medical service, the association guaranteeing to him his compensation for his services.

"I sincerely hope this bill will be passed by this committee favorably."

Dr. Barber: Have you your credentials from the Wisconsin Farmers' authorizing you to come here to appear for this bill?"

Mr. Semrad: I haven't them with me, but you may have them, Doctor, if you so desire. I am a member of the legislative committee of our organization and secretary.

Our committee goes over all bills introduced in this legislature every day. I know particularly that the organization is backing this bill 100% because our president was here in the city yesterday and, as you have heard, Mr. Biemiller has presented his statement here in support of this bill.

J. F. Frederick
(Representing Federal Trades Council of Milwaukee)

"This subject of health insurance dates back to forty some years when in 1919 I was appointed member of a committee by the state official of labor to study this question of health insurance. I served upon that committee as representative of organized labor, Mr. H. Storey represented industry, and a doctor represented the medical profession. However, this question of providing some means of getting to our people, particularly workers, an opportunity to get health service at reasonable cost either through an association that they might build up, or through action of the State itself, has been a matter which organized labor has considered ever since and which we hope to be able to accomplish sometime in the near future.

"This bill as I see it is a bill which will allow people, who wish to, in order to get the health service they need for themselves and their families, to get together and through the employment of doctors, either a single doctor or a group of doctors, get such service. I see no reason why anyone should object to that. It is true, of course, that the establishment of that sort of an association on the part of workers may interfere with the private practice of some doctors, but I don't see that there should be any reason why a state or anyone else should object to that. If we admit that medical service, surgical service is necessary to the health of the community, and that it is for the welfare of the community, then we ought to feel that the State, if it takes any action at all, should make it possible for them to get this service. We recognize today, for example, that we need education and we have built up through our State free public educational institutions. I don't question that when that was first proposed, those supplying education in private practice, felt that it was an interference with their profession and with their vested rights to supply that service. There was probably much argument about it, and yet we learned that in order to promote the public welfare, it ought to be done on the basis of a cooperative undertaking rather than private enterprise as we are doing some of these things.

"The question has been raised here and talked about that many doctors now are giving a great deal of charity service so that no one needs to go without medical care. That may be true. But workers do not want charity. They want to pay for the thing they get, but they want to be able to get service at the most reasonable price. As far as the doctors themselves are concerned, those engaged in this service will, I think, perhaps be able to get just as much as they do at the present time in private practice because if the associations are successful they should attract a large enough number so that those doctors operating under that plan will be able to be assured sufficiently large incomes that they can compete with those in private practice. When any of these propositions are brought forward, the question arises as to what some of the doctors that can't go into this plan are going to do; that it is going to hurt them. We sometimes have that problem that changes in the method of doing things sometimes displace some of our people, and we know what that problem is. On the other hand, I think the State and the legislature which shapes the policies of the State, have to recognize the fact that if a thing is no longer economically sound, it isn't going to endure no matter what you want to do about it. Sooner or later there has to come a change, and I think the legislature ought to see that it comes about in the right way. If there are too many doctors, then of course it is unfortunate that someone will be hurt, but an adjustment must be made, and that adjustment I think will come and should come about in the proper manner,—giving the people the right to get together, to not wait until sickness is upon them, but to get into an association which will assure them and

their families of proper service—I think this is a step in the right direction. All the members who go into the plan do not require a great deal of medical service. Some are in for years without requiring any to speak of, and they help to bear the burden of service for those who need it. But even those who do not require the full amount do get something out of the association, because they have that feeling of security that if they do need that service it is there for them.

"I trust the committee will consider it favorably and that it will be enacted into law."

A. N. Young

(Vice President, Farmers' Equity Union, Superior, Wisconsin.)

"I am not going to deliver a long speech, for I am not given to long speeches. In the first place I should like to see this bill passed so that people can do what they want to do. There are two classes of people who are already provided for to some extent—those who are able to pay and those fellows who are unable to pay anything. The people on relief and the W.P.A. crowd—they are taken care of. This is for those who have a hard time to keep off the relief rolls, but who do not belong to the upper classes. This is one beautiful thing about it. I believe I belong to this middle class, and this would give us a chance to organize this cooperative insurance quietly. I have given all my time to organizing cooperative institutions. I helped to organize the Cooperative Dairy Association, and the Farmers' Union; the Progressive party organization in our county, and various things of that kind. I have studied Rev. Buckley's statement about it and his investigation and I couldn't help but feel it was a good thing. The state legislature of Wisconsin is going to give us the privilege of doing what we want to do so long as we do not commit either physical or economic suicide. The Oklahoma hospital was established in 1927 and has today 2,700 members. The cost per family is $5 a year — here is the list of free service to be rendered, a picture of the building. It was organized and established by the Farmers' Union of Oklahoma. I want to leave this with you because I think there is more real information for this committee than anything you have heard this afternoon.

"I have nothing further to say in particular except that I am for this heart and soul. I am for anything cooperative, and that is the reason why I am for this. The time is coming when our legislators in the state and nation will recognize the oncoming of the cooperative movement, for all the people. That finally is going to be the governing power of this country. The fact is I would like to have a little medical care for my limb, but I haven't the price." (Laughter)

Chairman Kiefer: Are there other appearances?

Mr. G. B. Hanner, representing the Smith Steel Workers Union No. 19806, Milwaukee, Wisconsin, then appeared in favor of the bill.

Fred Gastrow

(Representing Wisconsin Federation of Labor, Madison, Wisconsin.)

"I would just like to say, Mr. Chairman, that the reason why the organized workers of Wisconsin are for this bill is because they want every person to get all the medical care that he needs.

"Secondly, we want every doctor who is working, and all who are working, to get their money. I believe through this method that they can accomplish this."

Chairman Kiefer: I am sure that we have been most lenient in granting time to those in favor of the bill, if there are any who would like to register for the bill they may register with the clerk. We will now hear those in opposition to the bill.

Others appearing in favor of the bill were Mrs. Clinton M. Barr, Milwaukee, and Mrs. Albert Lanto, representing the Northern States Women's Cooperative Guild, Superior, Wisconsin.

J. G. Crownhart
Secretary, State Medical Society of Wisconsin
Secretary, Wisconsin Hospital Association
Madison, Wisconsin

"Mr. Chairman: I wish to register for the Hospital Association also as being opposed to this bill. I will try to keep my remarks within the allotted time.

"I would like to take up before we analyze the bill, two or three points which seem to me very significant in the statements that have been made here this afternoon. In referring to the organization of insurance companies the statement was made that it requires $200,000 initial capital. That is one way of doing it. There are also other ways whereby it can be done—that is by mutual insurance companies where no capital is required, but requires only 200 signed-up policyholders. It was also stated that medicine was against the principle of insurance, at least that inference was left. I know of no time when physicians have been against insurance, that is, insurance payable in cash. All of our social security legislation, all of our various health and accident policies, life insurance policies, are not concerned with the question of housing, food, or clothing, but are benefits payable in cash or items with which they are familiar and they know precisely what the monetary value is. If a person thinks he has paid too much for what he receives he has an opportunity to register his complaints. Reference was made here to relative average costs. It is also possible to spread average costs so that each individual pays more a year and pays more than once a year. But here is legislation dealing not with people's money, not with people's homes, not with people's farm machinery but dealing with life itself. It is surely our obligation to measure the results, and measure them by the best yardstick we have, which is the service the people will actually receive, if we are going to enact legislation dealing with life itself, not with just my life, my brother's life, the life of my children, but with the lives of large groups of people, and as Mr. Hayes has so ably stated, this legislature would put the stamp of approval of the state of Wisconsin on that procedure, and surely we should exercise every possible precaution within our power and within our means to make certain that this legislation will not be misleading.

"Reference was made by a previous speaker to the fact that a call in Iron River cost $30. That might be true if a physician were called from Superior. I do know that there is a doctor in Iron River. It was also suggested that fees of physicians were fixed. They are not, from my experience, unless you say they are fixed on the same principle that the state of Wisconsin uses for its tax collections when it says that each shall pay in accordance with his ability, and then reference was made to 'organized medicine'. So far as I know there are no physician members of the State Medical Society here today. I am here today to give you the information they have and their study of this particular bill. Physicians are not different individuals when they sit down around a table such as this one, any more than you are different individuals when you are in a meeting than when you sit at this table. They are but a different group—I am sure you appreciate that. There is no difference in the objective of physicians and those who have spoken here. I know of no group (and I can say this because I am a layman) that has worked so hard, so persistently, and pioneered so much legislation in this State as has the Medical Society, and for what? For their monetary returns? No. It has been to bring the very best that they knew in health service to the people of this State. It was this 'organized medicine' that asked you to create the State Board of Health; it was 'organized medicine' that asked you to build (and which you built) the hospital for the insane at Mendota, the tuberculosis sanatoria, and which asks you time after time to protect people's health, and points out ways of doing it, and at a monetary loss. There is no difference in objective. Nor should there be any issue here as to objective. It should not be befogged. The question is just this, which has been so ably stated, and which I want to repeat, that in dealing with

this problem shall we place the stamp of approval of the state of Wisconsin on this type of legislation so that the people will know that the legislature thinks that these principles are sound?

"I would like to analyze the bill, which is something that has not been done this afternoon. What is it this legislation does? As I have already told you, the objective is identical, that of bringing health to the great majority of people in the most adequate way no matter where they may live. That is something that we have pioneered in. So, with this common objective, we ask the question as to whether this specific legislation means a step forward or does it mean that we may place in jeopardy, in order to conduct an experiment, the lives of large numbers of women, men and children?

"I will skip the introduction, which is a declaration of public policy. I want to go right to the bill. Referring to the bill on pages 2 and 3, subsection (3) deals with the charter granted the State Medical Society by the legislature. The State Medical Society was organized in 1841 while Wisconsin was still a territory. The charter law exists on the statute books as Chapter 148 of the Laws of the State. At the last session of the legislature, legislation was passed whereby if physicians of the State themselves saw any opportunity to conduct controlled experiments developing a new field of service that they themselves might clearly have that power, and they have used it for the purposes intended. In this amendment to that law it states that 'nothing in this subsection shall be construed to interfere with' other organizations. They have (State Medical Society of Wisconsin) never at any time or under any conditions, because they had certain powers to do certain things in the public service, thought that that was an exclusive power. This has been stated here. This is not so.

"This amendment is unnecessary, for it is fundamental that specific powers granted one group in no manner affect other groups. My presentation is to bring you the interpretation of how physicians see this legislation—to bring you their own thoughts out of their own experience.

"Now turning to page 3. The great majority of all hospital beds in the State are in institutions supported wholly or partially by public funds, which are wholly or partially tax exempt. In discussing this bill we are talking about all the hospitals in the state of Wisconsin. When the bill discusses denial of hospital facilities, it is discussing substantially all of the hospitals, including the Wisconsin General, Mendota, Winnebago, the State Sanatorium, and every institution of that type as well as all religious institutions and institutions run for profit. Now in lines 5 to 11 it follows that, with relation to all these hospitals I have mentioned, they shall not deny aid to any person or physician—may we stop at this point.

"It is to be noted that what they shall not deny, not only affects one licensed to practice medicine and surgery, but also by the use of the word 'physician' in the bill, which is defined elsewhere in the Statutes, they shall not deny one licensed to practice osteopathy, chiropractic, masseurs, midwives, etc. Some of these do not even believe in the germ theory of disease.

"In line 5 you will note the bill provides that they shall not deny the facilities of such hospital. The facilities of a hospital include not only a room, but an operating room as well, the laboratory, its x-ray service,—everything that a hospital has within its walls to alleviate or relieve disease.

"In lines 6 to 11 it is provided that they shall furnish medical or hospital service in consideration of a stipulated sum paid down. Let's see what that does. There isn't a hospital in this State that hasn't certain staff restrictions. They deem them essential in the interest of the patient. It is required that a physician prescribing narcotics must sign for them in his handwriting or with his initials. Just how much shall the patient receive? It is required in hospital regulations that if the physician is a young man, he may not do the more serious operations during the first years of his practice without having someone else of experience standing beside him and assisting him so that in the event that anything goes wrong he may be

ready to take over and complete the procedure without endangering the life of the patient. Care is taken to see that patients who might have communicable diseases are isolated so that the health of the whole institution will not be endangered. Those patients who are already sick—it would kill them. Staff regulations require that certain operations be not performed without consultation by experienced men. All these requirements and many others are established by the staff and the board of trustees of hospitals to protect the patients in the institution. The provisions in lines 6 to 11 would thus set aside every one of these restrictions, and it may well be that those physicians who could not be admitted to service in a hospital today under any conditions, could absolutely turn right around and enter into a contract with some group, and the contract might not even be a legitimate contract, and then apply for admission to the hospital staff, and then say, 'It is because I have this contract that I can't be admitted,' and every one of those cases will bring about expensive litigation if nothing more.

"Turning now to pages 3 and 4. This subsection again amends the charter law of the state and county medical societies and proposes to effect two or three objectives. If it were proper to create a new section under the miscellaneous health provisions concerning denial of hospital facilities, why should a section on discrimination that relates to hospital service be included in an amendment to the charter law of the State Medical Society. An analysis shows that what is desired to accomplish affects the actions on the part of members as well as nonmembers of the State Medical Society. In other words, of every physician in the State. The last part of the section of the bill relating to discrimination as it stands now desires to accomplish two objectives: First, that no physician or hospital shall discriminate against a patient because he entered into a contract for medical or hospital service, because he paid a stipulated advance amount to a cooperative association or to one or more physicians, and secondly, no physician shall be excluded from the Society simply because he enters into such contract.

"Here is a pregnant woman, let us say. She is under the care of one of these groups, and under the care of a certain physician in that group. For any of a number of reasons she may not care for the physician assigned to her. She may have lost confidence in this physician, he may have left town, or for some reason she turns to some physician not in the contract group and in some cases (in an emergency, for instance) she may choose one from a list, and this particular man will respond to an emergency call. He recognizes at once that there are complications. He knows that the physician who has been caring for her is the man best equipped to handle her case from her viewpoint. He can be reached, but she says, 'No, I want you to continue.' What to do? He refuses and is sued on the grounds, provided under this bill, it being claimed that the denial was based on her membership in such an association.

"Lines 17 to 24 compel members of county medical societies to deal on equal terms with every physician in the State who holds one of these contracts, and presumably that is the type, because of the numerous references to discrimination, that would be most apt to enter into these schemes. If the Society rejects him, even though they have never invited him to come in before, then the evidence is that they rejected him because he held the contract, and they will have to stand before the public and recognize him as member whom the Society would reject without this provision.

"On page 4, in lines 25 to 40, the purpose of this section is first to authorize consumers' special service cooperatives for the purpose of securing and obtaining medical care. Second, it authorizes physicians to band together as a group to form a marketing cooperative. Third, it exempts all such associations from any of the insurance laws of this State.

"In this consumers' special service cooperative or in this physician marketing cooperative, we are not insuring somebody for a cash benefit. We are insuring him for a service that is going to be given him in terms of service and not cash. If the legislature

thinks it is important enough to erect safeguards against loss of cash insurance; if it thinks that under group hospitalization plans there should still be supervision by the Insurance Commission, then when we come to this other group cooperative, shall the legislature now allow them to go right ahead without the slightest supervision from anyone?

In amending the State Society's charter law it was provided that the responsibility of the physician to his patient shall remain the same in regard to contract and tort relationships as though they were direct between physician and patient. That is now the established legislative policy of the State, but under this section in line 44 it is provided to legislate that the 'personal relationship' shall remain the same. Gentlemen, that is something you can't legislate in, but you can legislate it out.

"On pages 5 and 6 we again find the provision against discrimination. This repeated effort to prevent even the soundest discrimination against a certain physician simply because he is under certain contract relationships is the best possible evidence of recognition on the part of the proponents that this particular type of legislation lends itself to the use of that undesirable type of physician.

"In lines 67 to 70 you will find provisions that imperil the safety of every hospital in this State. For instance, a specialist in the care of the eyes is called upon in the middle of the night. He will be willing to suggest others who are competent, but they say 'No, come anyway.' He knows he is not competent to serve them. This would be *prima facie* evidence.

"Now we get the significance of the appearance of some here today. It is to be noted that this exemption from insurance laws applies beyond an exemption to cooperative associations. This exemption applies as between physicians as individuals and partnerships as well, any group of physicians as individuals and partnerships as well, any group of physicians who may wish to provide this type of contract.

"Take the example of an individual who has paid his premiums for fifteen years at, let us say, $10 a year. What assurance has he that when his time of need arises the organization that took his money all these years will be there to fulfil his contract? The insurance statutes protect us against fraud in contracts of other types—why not in this instance? If this section is enacted, we extend the other exemptions in the bill not only to exempt from insurance provisions, those insurance plans that affect life itself, while retaining some that affect the pocketbook, and leaves a man without any redress whatever.

"In closing I want to say that my whole life has been spent in a home that revolved about doing things for people as groups, and for large groups. I was brought up all my life in that atmosphere, and I haven't changed in the fifteen years that I have been associated with the State Medical Society. If anything it has impressed me more and more, for I have seen the problems of the farmers in their homes and of those in the low income groups and I have seen them, and the problems of the physicians in their practice with all groups of patients, if patients can be placed in groups. Now, with that background, may I say that the cooperative association law was enacted under the leadership of Senator Alvin C. Reis, now a judge. If I am permitted to speak from the viewpoint of cooperatives for a moment, as I observe the legislation here, I am certain that they least of all would want any amendment to that clear-cut law which would place it in jeopardy, certainly not an amendment to provide for organizations not cooperative in principle, but on the contrary organized for corporate profit. I think, furthermore, that they would want to keep a distinct line of cleavage and demarcation between what is a cooperative and what is a corporation or other business methods of organization. Nor would they wish to see self-imposed upon their organization a new type of organization that is not cooperative in principle and which is experimental in character and which would jeopardize the structure upon which these cooperatives have been built. In the words of the late Justice Owen in supporting that legislation, 'an unconscionable

spread between what is paid the producer and what is charged the consumer' was the basis upon which the cooperative legislation grew. In other words, that new law was designed to eliminate the middleman. There isn't any middleman between the physician and the patient. If this principle were enacted into law what it would do would be to create one. From the viewpoint of the farm population as well as the viewpoint of labor groups, I am certain I can say this, that both are going to depend upon cooperatives more and more in the future. I am certain that we as a group enjoy the privilege of cooperation, but this type of legislation has contained within it the germs of exploitation. In other words, experimentation in the field of medical service. Proponents have stated that there is some experimenting to be done. This is absolutely and entirely needless. In Europe they have reported that this type of service could not be carried on by small societies of even a few thousand members. The minimum size of the group that could possibly carry on this type of thing would be 50,000. Control rests equally on all its members and the gains are distributed to the members in proportion to the use they make of the service. As a group of physicians they control this service. Surely there is no one who will not say that such an organization posing as a cooperative misuses the principle and exploits the name.

"Finally, looking at this proposal again from the viewpoint of the people, are we going to put the stamp of approval of the state of Wisconsin on one not based on the cooperative principle? We authorize and legalize the selling of insurance for a commodity, which can be stored, or can be sold and which can be measured as to value by every person. This cannot be done in regard to the selling of medical service.

"May I suggest that this bill in an effort to do something for the people has by its very title indicated that it is going to deliver what that title promises. May I suggest that after the most earnest consideration of the physicians of this State, that in their judgment, as it is provided in this bill, it will benefit neither the physician nor the people. I have sat, Mr. Chairman, in meeting after meeting and have seen these physicians giving of their time and expenses, coming from La Crosse, Milwaukee, Superior, etc., and sitting around a table as you are sitting around the table here, trying to figure out an advantage here and an advantage there. It is the opinion of those same people who have given so generously of their time and energy who state that this measure will not work to the interest of the sick man when he needs the service. Physicians, when they experiment, experiment in laboratories and they experiment under controls and they do not carry that experiment to the patient until they have some reasonable certainty that it will work. This bill would not be experimenting with the life of one person, or of a small group of persons, but of thousands.

"Thank you for your very courteous attention."

Mr. Biemiller: Do I gather correctly from your testimony, Mr. Crownhart, that you are opposed to the principle of the bill as well as to the bill itself?

Mr. Crownhart: I think that might be said, Mr. Biemiller, for this reason, that under this principle there is no measure that anyone can apply as to whether the service benefit is going to be good or bad. It is not to be interpreted that physicians oppose all wholly cooperative principles.

Mr. Biemiller: In other words, the Wisconsin Medical Society doesn't agree with some of its sister societies in other states which have endorsed the principle of health insurance?

Mr. Crownhart: Will you name them, Mr. Biemiller?

Mr. Biemiller: Yes. Voluntary health insurance at one time or another has been endorsed by California, Washington, Oregon, Michigan.

Mr. Crownhart: I don't happen to be acquainted with all of them, but I am with California and Michigan. Your statement is broad—they themselves say this isn't true.

Mr. Biemiller: You disagree, then, with both the majority and minority reports?

Mr. Crownhart: You know, Mr. Biemiller, it is easy to sit around a table and talk

in generalities. The State Medical Society attempts to bring to one problem all the knowledge they can get from every source. They ask what will best benefit the citizens of Wisconsin. We disagree with parts of both of those reports.

Mr. Biemiller: You are familiar with the views of the president of the Cooperative League of America who is an M.D.? Don't you think that the fact that he endorses medical cooperatives shows that this is being accepted as a good plan?

Mr. Crownhart: I agree with you that he knows a thousand times more about them than I do. I do know that he says, however, that the system cannot operate unless there are 50,000 in a group.

Mr. Biemiller: If I read your charges correctly in regard to the Milwaukee Medical Center case, you definitely tried to construe that the Medical Society had the exclusive right to engage in group practice, or insisted that any such practice must have the approval of the Medical Society.

Mr. Crownhart: When Chapter 350 was enacted we could visualize that obviously there would be a large number of suggestions as to how something could be done, and those suggestions would be welcome. We said, however, that before a member of the Society jumped off on one of these ideas he shall bring it to the Society and let all physicians consider it and see whether, in the judgment of many and not of just one or two, these proposals will work in the public interest. To that extent, Mr. Biemiller, we did say 'You shan't go out and frankly experiment on the health of the people unless you bring before the societies of which you have chosen to be members, and see if this can be worked as a society project.' A large number of proposals were so brought, and we sat for hours and hours discussing them. There is one operating in the State, but they didn't choose to bring in this case.

(Note: The following was not recorded by the reporter but was written by those in attendance to provide continuity.)

Mr. Biemiller: You made a statement in your discussion that the author in the title of the bill or in the bill was trying to cover up something — that there was something misleading. Did I understand you correctly?

Mr. Crownhart: I didn't mean to infer that there was a deliberate intention to mislead anyone in this legislation. I merely say that because of the title of the bill there is a tendency to think of it as a cooperative bill. It is very much more extensive than this and of far greater importance in its implications.

Mr. Biemiller: Do I infer correctly from your opening remarks that you would be for a system of health insurance that paid cash benefits?

Mr. Crownhart: Have physicians ever opposed any plan of cash benefits only?

Mr. Biemiller: Then if we amend this bill payable in cash benefits, the Medical Society would reverse its position?

Mr. Crownhart: If a person were paid in cash and knows exactly what he is getting for his money.

Mr. Biemiller: May I properly infer that the Medical Society would not oppose a health insurance bill which pays cash benefits?

Mr. Crownhart: Cash only, under insurance regulation, with no control of medical service or personnel, permitting the individuals to use that cash as they see fit.

Mr. Biemiller: I infer from your testimony that we are agreed on one thing at least—that health is certainly not a commodity like an automobile. You can't measure medical service in the same terms as you can automobiles. Isn't that precisely why you can't bring it under the scope of the insurance laws?

Mr. Crownhart: That is precisely why it should be brought under the insurance laws.

Mr. Biemiller: You can't measure it.

Mr. Crownhart: You can measure it on the basis of the cash the people have put in it.

Mr. Hayes: Mr. Chairman, may I ask Mr. Crownhart a question?

Chairman Kiefer: It's entirely up to Mr. Crownhart.

Mr. Crownhart: I will be happy to answer any question the chairman wishes to have answered.

Mr. Hayes: I'm sure that Mr. Crownhart can answer it if he will.

Mr. Crownhart: Mr. Chairman, I'd like to take exception to that statement. I have in all my appearances before the committees of the legislature, tried to place before them all of the factual information at my command.

Mr. Hayes: You said in your discussion that under the wording of this bill a hospital would not have the right to deny its facilities or use to a doctor who might be lacking in training in surgery, to a doctor who might bring in a patient who was suffering from a communicable disease, or to a doctor who lacked medical training. Where do you find that, in subsection 3? In your discussion as I understand it, you said that under this heading of denial of hospital facilities the hospitals no longer would have the right to deny their facilities because of those reasons I mentioned.

Mr. Crownhart: I hope that I made that very clear. I said that physicians and others who had not been able to enter a hospital before and practice as a staff member under its full authority for any number of other reasons, if this law is passed, might enter into one of those contracts and then apply for the first time to enter that hospital with a patient. And I said, as I recall it, in every one of those instances certainly expensive litigation would be involved.

Mr. Hayes: Hospitals may now exclude doctors who have not the requisite ability to practice there.

Mr. Crownhart: The question would be asked "Was this man excluded because he didn't have the ability?" which after all, is something pretty hard to demonstrate to a court, or "Was he excluded because he had a contract?"

Mr. Hayes: I don't gather from my understanding of your remarks that there is any problem in this bill that involves the final determination of fact concerning the reasons why the hospital rejects admittance to a doctor. I assume you were discussing what was in the bill.

Mr. Crownhart: I was. This would bring about the enactment of law which would make the rights of hospitals at least uncertain and would involve expensive litigation.

Mr. Biemiller: I would like to ask where you got your figure that it would take 50,000 to run one of these plans.

Mr. Crownhart: Perhaps I should modify that. As I understand it, they have now erected a bureau to instruct cooperative groups as to how to do these things. They have sent out about six plans. One that I had indicated that it couldn't be done under 50,000.

Mr. Buckley: May I file this with you for your hearing? It endorses the Indiana plan, Dr. Warbasse and his cooperative medicine. This plan has 67 families in it. The Elk City plan which has been running for nine years, has 2,700 families.

Mr. Maslow: Some of the newspapers printed a release of the State Medical Society which stated that this was a third party bill. It insinuated that this interposes some sort of a third party between doctor and patient; that they sign contracts and get a profit out of them.

Mr. Crownhart: When you have an organization that collects money and with that money makes a contract to deliver to any of its members who may require it, a certain service, it naturally follows that there has to be some safeguards on the organization. It must be agreed what the service is going to be. The question must be answered "Can he take any patient he wants to to a hospital?" He may under certain circumstances. Can he administer any drug that he wants to? If this were the case it might very well bankrupt the organization.

Mr. Aaron: Did I understand you to refer to the president's report of cooperative enterprise abroad? Have you a copy in your possession?

Mr. Crownhart: I have.

Mr. Aaron: How long have you had a copy of such report?

Mr. Crownhart: About a month.

Mr. Aaron: You are a most fortunate person—it has not yet been released.

Mr. Crownhart: It will not be released until about midsummer. I was very much

interested in the subject and he gave me a press copy.

Mr. Aaron: Mimeographed copies of this report are the only things which are now available. I wish to say that I do not agree with your conclusions which you draw from that report.

(Mr. Aaron, representing Consumers' Cooperative in Milwaukee Vocational School registered in favor of the bill.)

Mr. Biemiller: I have an amendment which looks awfully long. I would like to leave it with the committee at this time. It does not change the bill in any way, I have given a copy to Mr. Crownhart.

Rev. Buckley: May we ask the State Medical Society, challenge them with this—let them draw up another bill that will take care of the 65% who are not now being taken care of. We challenge them to get some other proposition that satisfies this great need. It is humanity we are thinking of.

(The chairman of the committee announced that the committee would go into executive session. The committee gave the following consideration to Bill 850, A.)

Committee Action and Report

By Mr. Biemiller

A bill to amend subsection (3) of section 148.01, and to create section 146.23, subsection (4) of section 148.01, sections 185.50 and 201.85 of the Statutes, relating to the formation of cooperative and other associations to provide medical or hospital care, discrimination against, exemption from insurance laws, and providing a penalty.

COMMITTEE ON PUBLIC WELFARE

Date of Hearing—May 6, 1937; *Hour*—2:00 P. M.; *Room Number*—Public Service Hearing Room.

Members Present: E. H. Kiefer, chairman, Messrs. Swanson, Biemiller, Fritz, Barber, Hipke and Mrs. Kryszak.

Absent: None.

APPEARANCES

For:

Assemblyman Biemiller.

Nat T. Buckley, representing Cooperative Health Ass'n., Superior Federation of Labor, First Methodist Church of Superior, West Wisconsin Conference Methodist Episcopal Church, West Conference Chairman of Foreign Relations and Member of Conference of Social Service Committee, Superior, Wisconsin.

Gerald Hayes, Milwaukee, Wisconsin.

J. D. Semrad, representing Farmers Joint Legislative Committee, Blue River, Wisconsin.

J. F. Frederick, representing Federated Trades Council, Milwaukee, Wisconsin.

A. N. Young, Vice Pres., Farmers Equity Union, Superior, Wisconsin.

G. B. Hanner, representing Smith Steel Workers Union No. 19806, Milwaukee, Wisconsin.

Fred E. Gastrow, representing Wisconsin Federation of Labor, Madison, Wisconsin.

Irvin I. Aaron, representing Milwaukee Cooperative League, Milwaukee, Wisconsin.

Mrs. Clinton M. Barr, Milwaukee, Wisconsin.

Mrs. Albert Lanto, representing Northern States Women's Cooperative Guild, Superior, Wisconsin.

Against:

George Crownhart, representing the State Medical Society of Wisconsin and the Wisconsin Hospital Ass'n., Madison, Wisconsin.

REGISTRATIONS

For:

Kenneth Homes, Pres., Farmers Union by request of Mr. Biemiller.

Mr. George Halonen, representing Central Cooperative Wholesale, Superior, Wisconsin. (By Letter to Mr. Biemiller.)

F. W. Riba, representing Forest Local Farmers Equity Union, Cylon, Wisconsin (Telegram to Mr. Biemiller).

John R. Guendert, representing Smith Steel Workers No. 19806, Milwaukee, Wisconsin.

Charles T. Wilson, representing Citizens, Superior, Wis.

Oscar P. Vossroinkel, representing Federal Labor Union No. 19806, Milwaukee, Wisconsin.

M. J. Simanek, representing Middleton Farmers Cooperative Co., Middleton, Wisconsin.

Mrs. Frank Mehtala, representing the Wentworth Cooperative Ass'n., also Farmers of Douglas County, Wentworth, Wis.

Walter J. Schuetrum, Jr., representing Cooperative Health Ass'n., Superior, Wisconsin.

Rev. Alfred Wilson Swan, Madison, Wisconsin.

John S. Bordner, Madison, Wisconsin.

Elizabeth Brandeis, representing Local 223 of American Federation of Teachers, Madison, Wisconsin.

Harold M. Groves, representing Madison Consumers Cooperative, Madison, Wisconsin.

Roy E. Kubista, representing Wis. State Employees Ass'n., Madison, Wisconsin.

Against: None.

COMMITTEE ACTION: May 6, 1937

Moved by Mrs. Kryszak, seconded by Mr. Kiefer, that Amendment No. 1, A., to Bill No. 850, A., be recommended for adoption. Motion carried.

Ayes: (7) Messrs. Kiefer, Swanson, Biemiller, Fritz, Barber, Hipke and Mrs. Kryszak.

Noes: (0) None.

Absent and not voting: None.

Moved by Mr. Kiefer, seconded by Mr. Swanson, that Bill 850, A., as amended, be recommended for passage. Motion carried.

Ayes: (4) Messrs. Kiefer, Swanson, Biemiller and Fritz.

Noes: (2) Dr. Barber and Mrs. Kryszak.

Voting Present: (1) Mr. Hipke.

Absent and not voting: None.

ED. H. KIEFER,
Chairman.

This is the second committee hearing held on the bills introduced in the 1937 Wisconsin Legislature by Assemblyman Andrew J. Biemiller of Milwaukee. As will be noted by the committee report, this bill was recommended by the committee for passage by a vote of four to two. The bill will undoubtedly have a vote by the assembly as a whole during the week of May 10.

Another of Mr. Biemiller's bills is scheduled for hearing before the Assembly Committee on Public Welfare during the week of May 10. This bill is the compulsory sickness insurance bill which provides for complete medical and hospital care for employed persons. The bill will be financed by a 2% levy on the employee's salary, to be deducted from his earnings. A similar 2% levy will be made, to be paid directly by the employer.

Bill 661, A, which provides for an interim committee to study the cost of medical care, is also scheduled for a hearing during the week of May 10 before the Assembly Committee on Public Welfare.

Further bulletins will be issued as action is taken on the bills. The remainder of the Biemiller bills have not as yet been scheduled for public hearings.

Report of Assembly Hearings on Biemiller Bills Relating to Poor Relief, Subsidizing Physicians, and Treating All Residents in Tax-Supported County Hospitals

EDITOR'S NOTE—Assemblyman Biemiller, of Milwaukee, has introduced seven bills in the Wisconsin Legislature relating to the delivery of medical service. In the May issue of the Wisconsin Medical Journal there appeared the report of the hearing of the so-called "cooperative" bill. In this issue of the Journal on page 471 ff. appear reports of the hearings on bills relating to compulsory sickness insurance and the interim committee to study the cost of medical care. In these insert pages appear the hearings on three other Biemiller proposals.

HEARINGS on the last three Biemiller bills were again before the Assembly Committee on Public Welfare, the membership of which includes Edward H. Kiefer, Milwaukee, chairman; Andrew J. Biemiller, Milwaukee; Mary O. Kryszak, Milwaukee; George H. Hipke, Chippewa County; Theodore Swanson, Pierce County; Joseph L. Barber (M. D.), Marathon County; and Oliver H. Fritz, La Crosse County. The present hearing was called for 2:00 p. m. on May 25, but was not opened until 3:00, awaiting the appearance of the author. The hearing follows:

Chairman Kiefer: "The meeting will come to order. The clerk will call the roll."

(Roll call showing Edward H. Kiefer, chairman, Theodore Swanson and Oliver H. Fritz present; Andrew J. Biemiller and Joseph L. Barber appearing after the roll was called.)

Poor Relief

Chairman Kiefer: "At the suggestion of the author of the bill, who has been detained, we will take up 740, A. Anyone wishing to appear in favor of the bill will do so at this time."

Mr. J. G. Crownhart: "George Crownhart, secretary of the State Medical Society."

Chairman Kiefer: "Are you in favor of the bill?"

Mr. Crownhart: "In favor of the principle of the bill. I am handing you a substitute which I will explain very briefly, and how it differs from the original bill. The title of this bill is to provide that, regardless of how other relief problems are handled within the county, medical relief—that is, the care of the sick—shall be handled under the county system. There are forty counties that handle it under the county system now; and thirty-one, as I recall it, that do not. Although there is some division of opinion, on the whole we believe that when it is handled under the county system it is handled more efficiently.

"In Mr. Biemiller's original bill, however, he has two provisions wherein I doubt very much that the author sensed their operation. The first provision, Mr. Chairman, is that it shall be given through existing agencies. Well, now, I can conceive that a county board might wish—and will wish—to create a new agency; or at some future time, if the Governor's Citizens' Committee report were adopted, there might be created a new single agency in the county to handle all relief. Confining it to existing agencies rather freezes the county board. The substitute which I have given to you says nothing with respect to existing agencies; it permits the county board to designate either an existing agency or a new one if it wishes.

"Secondly, Mr. Biemiller's original bill provides that relief—having in mind now sickness care—shall be given only to those receiving relief. That has never been the policy of the State. The policy of the State has always been that a person may be self-sustaining for all necessities of life until suddenly serious illness hits, and then he is entitled to relief for that one cause alone. We

believe that that is a sound policy, and one that should be continued. So if the committee reports the bill, we feel that the substitute is better in that respect than the original bill, in that it still permits for care for the borderline cases.

"I might illustrate that briefly by saying here is a widow able to sustain herself for her clothing, her house and her food, but now she develops a case of diabetes and requires insulin. It is an expensive drug, and she requires it three or four times a day. For that one drug cost she is not able to carry the load, and under the present law, as the attorney general has interpreted it, the county or the town—if it is on the township system—may give her that measure of relief, although she is not on the relief rolls. And when in the original bill the author says 'receiving relief,' it would appear to us to be at least a court question of whether that did not mean that they had to be on direct relief rolls, in which case it would limit the humane policy of the State in a way that I feel sure Mr. Biemiller himself would not wish.

"So that to summarize, we are in favor of the policy of having the counties administering medical relief on a county-wide basis; we favor the substitute amendment which we believe more nearly meets with the principle the author has in mind than the bill that was drafted.

"If there are any questions, I will try to answer them."

Mr. Thielen (representing County Boards Association): "May I ask him a question, Mr. Chairman? Are you including in this substitute county relief as well as medical care?"

Mr. Crownhart: "No, medical care only. As I understand it, Mr. Biemiller's bill relates to medical relief alone; and other types of relief might well be on the township basis."

Chairman Kiefer: "Any other questions? Any others appearing for 740, A?"

Dr. G. W. Wilson
(Wisconsin State Dental Society)

Dr. G. W. Wilson: "Dr. G. W. Wilson, representing the Wisconsin State Dental Society. Mr. Chairman, and members of the committee: I am very surprised to find myself appearing for this bill, because on the way out I wasn't exactly in favor of all the parts of it, until Mr. Crownhart presented his substitute amendment which our Society wholeheartedly favors.

"At the present time there are three different plans of providing dental services along with medical services in the state of Wisconsin; one by clinics; one by the men in their own offices where patients are received for emergency dental service; and the other by the township plan. And I believe that it will be quite an advantage to have all this under the supervision and the guidance of the county board. So therefore we, our profession, favor the bill with the substitute amendment offered by Mr. Crownhart."

Chairman Kiefer: "Any other appearing in favor of 740, A?"

Mrs. C. D. Partridge: "May I ask Mr. Crownhart a question? Mr. Crownhart, would this be the same setup as the Milwaukee County setup at the present time?"

Mr. Crownhart: "It would depend on the county board itself in a given county, but it would be cared for on a county basis."

Mrs. Partridge: "Then the Wisconsin State Nurses Association also go on record for this bill with the suggested amendment by the State Medical Society of Wisconsin."

Chairman Kiefer: "Any others appearing in favor? Anyone opposed?"

Mr. A. J. Thielen
(Wisconsin County Boards Association)

Mr. A. J. Thielen: "Mr. Chairman and members of the committee: Some of the opposition that I want to register in connection with the bill is taken care of in the substitute. I want to talk on the bill first and say this: that you are changing the spirit and the policy of the State toward the care of relief, in the original bill. Many of the towns in the counties now are asking that they either have group systems or that they take care of their relief independently. In this bill you are saying: Go ahead and do this, but if it comes to medical care for the relief, that is a county problem.

"I don't believe that the Governor's Citi-

zens' Committee in supporting a bill of this kind are very consistent, because the recommendation they have been making is toward consolidation of this stuff in the county; and if the trend is going to be to let the local units carry the relief and then ask the county to carry the medical relief, I think it is a step in the wrong direction.

"Another matter is this: that in many of these counties now,—I have to give you a little history of what has happened here since the first of the year. These poor counties up north have been given 100% aid. That is tied up with your tax-collection system. Therefore, the State has been paying 97% in some instances, or from 97% down to 90. Since February there has been no state funds, and since February in these 21 northern counties the local dealers, merchants, bankers and everyone else have been carrying the load, until it has reached the point where the assembly this morning passed resolution 90, A, asking the executive department and public welfare department to appear in joint session and find out just what can be done to relieve the situation.

"Now, this bill carries no appropriation whatsoever, and if you are going to ask these counties to handle any part of the relief besides what the substitute calls for, it just isn't going to happen; you are going to have to re-write your taxation laws so money levied for relief purposes, whether medical or otherwise, shall be a priority tax, and as it is collected be paid over to the county with which to administer these matters. There isn't any use giving them these duties to perform unless you give them some means, even though it is a property tax, of carrying out these functions.

"Bill 740, A, is entirely out of line. I don't think it would operate, it just won't work. I believe the substitute amendment is a step entirely in the wrong direction, where you ask the local unit to carry relief and ask the county unit to carry medical relief. It should remain in one place."

Chairman Kiefer: "Any other appearance? If not, we will consider the hearing closed on 740, A; and we will take up 747, A, also by Mr. Biemiller. Anyone appearing in favor of bill 747, A?"

Subsidized Physicians

Mr. Harold Maslow: "747, A is a very brief bill. It will allow the common council or board of any city, town, village or county or any combination of such political subdivisions to subsidize wholly or partially a physician or physicians, whenever there shall be an insufficient number of competent physicians in their respective communities. And the bill also provides that all proposals under this section shall be submitted to the voters at the next general election. And then there is also allowed a referendum on the question.

"This bill was drafted as part of Mr. Biemiller's general attempt to handle the medical care problem of the State. This is aimed at the rural problem. Now, very briefly, I may state the rural problem is, first, a matter of the lack of medical facilities,—that is, a lack of doctors, of specialists, of nurses and county nurses, hospitals and dentists. For example, I took the northern tier of 20 counties and took the ratio, and here are the results: you have 16% of the population in these northern 20 counties, and about 40% of the total area of the State. Now, in these 20 counties there were only 8% of the physicians, as compared to 16% of the population and about 9% of the general hospital beds. The general ratio of the 20 counties was one doctor, one physician to every 2,000 people, roughly speaking. You might compare that with the figures for Milwaukee, where there is something like one physician to every 525 population, and Dane County with one physician to every 750."

Lower Quality of Care

"The second problem is more a problem of the income of the actual physician, and that is a matter of expense ratio. It is rather high relatively in the rural communities. And another matter is that about 30%,—that is the estimate of the Committee on the Costs of Medical Care—of rural expenditures are for patent medicines, quacks, etc. Another problem is the matter of the lower quality of care in the rural communities, as compared to the cities. That is of course care of the general nature—not having so

many x-rays and fluoroscopes and things like that in the rural areas. And another part of that question regarding quality is the fact that the average rural doctor has neither the time, the general hospital facilities or postgraduate work or the income with which to take time off and go back to school, the way the city doctor can. And then of course there is a lot of free, unpaid care by the doctors in the rural communities, which is a part of the general, very bad picture in the northern counties.

"But, in general, speaking about the problem, we may summarize rather briefly and—well, I think the best way to put it is that there is practically no sociologist in this country that wouldn't say that is a medical problem. For instance, Professor Kolb, who was connected with the Citizens' Committee, in his recent book says as much. The only question is what action shall be taken. One of Mr. Biemiller's bills, the compulsory health insurance bill financed by a pay-roll tax, has got the machinery which will handle the rural problem,—so that is one. Bill 850, A, the medical cooperative bill, is of course being pushed by the farm groups,—that is one possibility. 747, A, and 748, A, the bills which we will take up right after this, are the other two possible answers to the rural problem."

Co-ops Not Entirely Satisfactory

"Now, the reason that the medical cooperative bill will not be entirely satisfactory for the rural problem is—well, you may see it from a general analysis of the income problem of the farmer. There are three factors in this analysis: one, the general low income of the farmers; secondly, the fact that there is very little cash income; thirdly, which is an entirely separate factor, and that is the uncertainty of the farmers' income over the business cycle and also during the year,—that is, the seasonable factor. For these three reasons there will be a lot of counties, a lot of rural counties and areas which will not feel it very possible to support a cooperative, because in a cooperative each member of the community will pay, say, $25 a year irrespective of whether he is rich or poor or middle-class or anything of the sort. Now, this bill will allow the rural area to introduce the factor of ability to pay, because the funds for this method of subsidizing doctors will come out of general taxes,—and of course there is that element in that.

"There is just one more point which we may cover, and then I guess that can close the general analysis of the bill. That is this matter of whether it is state medicine or not. Now, very unfortunately, this bill will allow —where the bill says that a county can wholly subsidize a physician, so all county residents use this doctor free of any further charge, that of course is state medicine, the system that they use in Russia. Now, it is really rather unfortunate, because state medicine should not be tied up with Communism, there is no necessary correlation. As a matter of fact, this bill that we have here was drafted partially on a bill that has been on the statutes of the state of New Hampshire,—which is certainly not a hotbed of Communism—since, I think it is about twenty years now. Another example which this bill followed was the situation in Canada, which is also not especially Communistic. Now, the provinces of Saskatchewan, Alberta and Manitoba in Canada have had this municipal doctor since—ever since 1921. It has been very satisfactory. The Medical Society has supported it, the Provincial Medical Societies; the doctors have rather liked it, and there has been a steady increase,—I think, roughly, there are about 80 doctors in Canada that are supported this way. Well, of course, you realize that the state of Wisconsin has also gone into this business of state medicine, and with the blessing of the State Medical Society; because, of course, all medical relief to indigents, and the state hospital, and our insane asylums and tuberculosis sanatoriums are of course all state medicine.

"I think the only point left is that 747, A —like the medical cooperative bill, 850, A—is merely a permissive act, it allows the farmers to do as they please; there is nothing that will force a rural community to do anything they don't want to do. For example, the common council cannot suggest the plan and then put it into action; it must

specifically get the permission of the electorate."

No Demand

Mr. Swanson: "I am just going to ask, if you please, the proponent here just one question now. Since when has the city of Milwaukee or the farm organizations of Wisconsin been appointed guardians for the rural districts in northern Wisconsin,—do you know that?"

Mr. Maslow: "I am sorry, I think Mr. Biemiller will have to answer that himself."

Mr. Swanson: "It seems that on any proposition brought up here, all through in this legislature—whether it is social or otherwise—the speakers are saying what should be done for the farmers. I am a farmer myself, and I think that as far as northern Wisconsin is concerned, if we have need of some of this social legislation you gentlemen propose, that we can take care of that ourselves. There is no great demand that has come to any of you people to further this legislation on the part of the State."

Mr. Maslow: "No, there hasn't been any, but I fail to see what harm there is in having—"

Mr. Swanson: "But when it comes to a proposition, for instance, of something that comes closer to them,—you speak about a socialization bill, you come in here and say that the farm organizations want that, some of the leaders in the farm organizations are back of it. I want to tell you that the rank and file are not back of it. I know that, from the telegrams that I have been receiving in the last few days."

Mr. Maslow: "Well, I couldn't answer that."

Mr. Swanson: "Now, there is another thing. You men represent organized labor, and especially you in Milwaukee and these larger cities,—you are trying to bring a program to the farmers in northern Wisconsin. And yet when there is such a proposition, for instance, as the question that was brought up a short time ago, that we wanted to buy our twine through prison-made goods, which we are getting now, and buy our machinery from the Minnesota State Prison up in that part of the country, then the men that are coming from the big cities are fighting us on that.

"Now, in the Congress of the United States the proposition has come up, and that, mind you,—there is two propositions there too—in regard to the public welfare of this State, in regard to the conditions that we are in up there. We want that prison-made goods, we want the twine, we want the machinery that is being built up there,—for instance, at the Minnesota State Prison. Organized labor says: You can't have it, because it is being made by prison labor. Well, we don't care whether it is made up there,—bear that in mind, whether it is by prison labor or otherwise. We want those farmers to be able to buy that twine. If we can buy the twine for 2 cents cheaper out of the prison than we can from the International Harvester Company, that is our business,—and it is an important item to us. If we can get a binder from the Minnesota State Prison for $60 less than we can buy an International binder, that is important to us.

"But now in the Congress of the United States on the federal appropriation at the present time,—$1,500,000,000 is being appropriated, and out of that the state of Wisconsin has set up a program to build additions to these buildings around their state institutions, amounting to somewhere between $600,000 and $1,000,000. And now comes organized labor and the big corporations — International Harvester Company wants to fight the matter, and labor is working hand in hand. So here is the club, an amendment that has been put on that bill yesterday which provides that if the state of Wisconsin, state of Minnesota, Michigan, and all these other states don't come across and shut down their twine factories, shut down their implement manufacturing in Stillwater, and so on, in these states, why they are not going to give the state of Wisconsin one dollar of that.

"Now, we are beginning to be fed up, as far as the farmers in northern Wisconsin are concerned, with what labor proposes to do for us up there. We are not getting anything back,—here it is asking us to do something, but they are not giving us anything in re-

turn. Every proposition that we bring up they are fighting. And you, you and others, come before this committee and you propose remedies for this situation; and you, you won't help us with our problems. All you want is everything your way, and not give us anything."

Mr. Maslow: "Well, as to myself, I am not from Milwaukee; I am a Madison resident. I am not officially connected with the State Federation of Labor; I am merely a student of the University, and just simply got extremely interested in this matter."

Mr. Swanson: "But you are explaining this bill for Mr. Biemiller or from his standpoint."

Mr. Maslow: "No, I am a student,—I am appearing for myself."

Mr. Swanson: "You may be appearing for yourself, but you have Mr. Biemiller's views upon this matter."

Mr. Maslow: "But to get back to this bill, I think the important thing—I think there shouldn't be any confusion in this. The State Federation of Labor, Mr. Biemiller or anybody else connected with the State—"

Dr. Barber: "I challenge you to try to get Padway* in here back of this bill, or Handley.* You know you can't get them, because they don't stand for that kind of junk; they don't belong to that kind of a Federation of Labor. You know in your own heart this is merely Communism all the way through, and why should you come into the Wisconsin Legislature with such junk as this,—disturb the whole state of Wisconsin?"

Mr. Maslow: "Well, Dr. Barber, at the beginning of my talk I was very specific to say that we were not following Russia; we were following New Hampshire, we were following Alberta, Saskatchewan, and Manitoba; and we were also incidentally following the United States Army and Navy, which of course have a very competent and very excellent system of state medicine.

"And as to this bill and the relations of the State Federation,—as to this matter of the State Federation of Labor or the city people forcing things on the farmers, may I emphasize that this bill is merely a permissive act; there is nobody going to force any farmer,—that is, any group of farmers, any city council or county to attempt any of these systems."

Mr. Swanson: "But, as I said before, if the rural sections in northern Wisconsin want something from this legislature, we can come here and appear for it; we don't need you fellows."

Chairman Kiefer: "Mr. Swanson, may I ask you this question: Won't you agree that there may have been and actually is in some localities a sentiment in favor of this, if not from farmers?"

Mr. Swanson: "I don't doubt that."

Chairman Kiefer: "I don't want to think for a moment that anyone coming from the city of Milwaukee is going to set themselves up as a guardian angel over the welfare and health of the people out in the rural districts, unless there had been a sentiment expressed sometime that things along that line should be done, or that there might be even a demand. After all, you are living in only one part of the State, and you can't possibly know what is going on in the others. I think the bill is introduced in good faith. Any other questions to ask the speaker?"

Dr. Barber: "You are aware, are you not, that those fellows in Milwaukee that are interested in this kind of a bill, that they were once members of the State Medical Society, and because of violating all ethics and rules and principles of the medical profession that they were put out of the Society? You know that, don't you?"

Mr. Maslow: "Well, I have a—"

Chairman Kiefer: "You are drifting far away from the merits of the bill in this discussion here. I don't like to discourage anyone, but it seems to me we should confine ourselves to the bill. Whether any physicians have been put out of the Association, that hasn't any bearing on this bill. Anyone else wishing to talk on this, in favor of the bill? Anyone appearing against it?"

Against the Bill

Mr. J. G. Crownhart: "George Crownhart, appearing against the bill. May I say—while we are getting the map that I have

* Joseph Padway—legal counsel, Wisconsin Federation of Labor; J. J. Handley—secretary, Wisconsin Federation of Labor.

here—we are intensely interested in the problems of rural medical service, and for no other reason, Mr. Kiefer, than the fact that we have 3 physicians coming into Wisconsin for each one that dies, and have had for a long number of years; and we are trying to find a place where they may serve with profit to the communities in the State.

"I have here a map which I will lay out on the table if I may, of the northern 20 tier of counties that have been referred to. The yellow pins on the map designate physicians, the green ones physicians who are rather on the point of retirement but who have not retired, and the red ones indicate hospitals of varying size in that area. Now, you will note that I took a highway map, for the reason that it shows in the green areas the forest reserves of the State; and obviously, the whole object of the northern counties has been to hold new settlers out of the forest areas as older ones leave the areas, and the question then come just where we would put a physician in those counties.

"Now, that is a very real problem to us, because we have young men coming to our office upon obtaining their license,—I anticipate by the middle of July we will have inquiries from 100 to 120 of them: Where shall I locate in Wisconsin, I want to live in the State? We want to put them where they will be of best service to the greatest number of people, and I am frank to state that I know of no community in northern Wisconsin—with possibly a few exceptions where there have been deaths, because if a man dies it takes a while to locate another; but outside of that, I know of no community in the northern part of the State that has asked us for a physician or is seeking one, where we haven't a physician for them and haven't them placed there now.

"The statement was made that there is only one physician for every 2,000 people in these northern tier of counties. I want to say we checked that very carefully for we have the records of all the physicians in the State and have the latest estimates of population from the Bureau of Census, and that is true in two counties,—three, in this northern tier of 20. It is notably untrue in the other 17, there we find on an average there has been one physician to every 1,300 people.

"So you have some basis to judge, the Committee on Social Hygiene of the League of Nations studied this whole problem of rural care,—not in the state of Wisconsin or in the United States, but for all countries; and they find that the rural problem was adequately met when there was one physician per 2,000 population. As a matter of fact, we have a much better record than that in northern Wisconsin; but I know of no place, as I said before, where we could now place a physician.

"Secondly, the British sickness insurance panel system, which has already been copied by a bill quite similar in some respects before this committee, permits a single physician to have 2,500 patients on his panel. With that background, may I state now that the statement was made—and I want to make certain the newspapers get this perfectly straight—there was some statement made that would tend to leave the impression in my mind at least that medicine in rural areas was deficient in quality, and that the physicians in Milwaukee or Madison were much more numerous and much more at their command and were able to do much more postgraduate work.

"First of all, it is very unfair to compare the physician per population in northern Wisconsin with the physician per population in the city of Madison. A large city attracts large numbers of specialists, who couldn't live in any other area, because they draw from all over a given state; they may draw from, indeed, well outside the state. So that what you must compare is the physician per population, having in mind the word 'physician' as a general practitioner; and there we find it runs quite evenly over the State."

Utmost Respect

"Now, secondly,—this matter of quality. Mr. Chairman, and members of the committee, I have lived in northern Wisconsin; I have lived with these physicians. One of my obligations and one of my happy opportunities is to do all I can to bring to them postgraduate work that they themselves are unable to go away and get, because if they

do they leave their community without service. I want to say that I know of no state in the United States where there are such high-grade physicians throughout the state as in Wisconsin. They are doing a tremendous amount of postgraduate work year in and year out. We have established through our State Medical Society a medical library service, where we will furnish them with literature on any subject that they are inquiring about; and I want you to appreciate that we fill 12,000 of these requests a year from physicians in towns where they haven't libraries. I want to say that I have the utmost respect for the services of the family physician, and particularly those in northern Wisconsin, who know no hours in filling the demands of their neighbors.

"The bill provides that a community in need of a physician presumably may subsidize him. For many, many years the State has said, and with the approval of the State Medical Society in every detail: You may subsidize a physician at any time that you wish, and all you have to do is to pay him a salary as health officer. Every community has a health officer, provided by statute; and if they haven't a physician, and feel that one would come were he subsidized, then they may pay him an added salary to what would normally be paid, which is something around $10 a month, or perhaps even $5 on an average, and he will locate there.

"Washington Island in Door County is a small island community where they do need a physician. The physicians from Door County as a whole have a hard time in making their service reach Washington Island, because of the uncertainty of the channel. And they do subsidize a physician, and do it now under the present law.

"Our contention is then that when we have something that is working well, and offers a remedy at any time to any community, this particular legislation is not needed.

"Secondly, in the bill that is before you, it says this subsidy may be granted—in line 5—whenever there is an insufficient number of competent physicians within the limits of the municipality or municipalities. Again, if you will refer to the map, you will note that a physician may be 5 miles away from a municipality of 200 people, there may be a concrete road connecting them, and he may be giving them very, very fine service,—indeed, as good a service as they might have from a physician in their community; and yet, were this bill to pass, the fact that his services were available there from 3 to 5 miles away could not be taken into consideration. I feel that that is not in the interest of keeping physicians there, because we must look at the picture from the sense of the surrounding territory, and not just within the limits of a given village or a township."

Who Will Judge?

"Now the question comes on this matter of insufficient number of competent physicians. Who is going to judge them? I want to say that the competence of a physician, and whether there are or are not a sufficient number, is a question that takes in a lot of angles on various occasions. And I can visualize a physician who might be in a small community rendering a good service; been there a long time, serving his people well; and yet he might have been a very strong advocate of what is now a minority party; and in retaliation, I can visualize them bringing in, under this bill, a new physician and subsidizing him. And what generally happens as a result of that is, in our experience, when a new physician goes into a territory that is adequately served, neither of them makes a living and both remove themselves from the territory, and a community that had the service of a physician thus may go without the service of a physician for 3 to 5 years before we can get someone else in there because of what has occurred.

"Now, I say furthermore that in the study of this bill the same common council or the village board has the power, I note, to make the rules and to direct the physician. I doubt that that is advisable. I doubt if that would be the author's wish, because every time you place a physician who is rendering medical service to his patients under the direction of a lay board, the tendency is always there to tell him how much he can do and how little, and he must answer this type of call first. And if he goes off and does something on his own initiative the question

is always: Did he obey or did he disobey the rules?

"In conclusion on this bill, I would like to say that I feel that I know of no community in northern Wisconsin today that is seeking the service of a physician, except those where there are temporary vacancies due to death, and in such cases sometimes it takes us two or three months to fill the vacancy.

"Secondly, I am advised that in this whole area of which we are speaking, there are large numbers of children of high school age who are denied high school opportunities. We wouldn't wish it, but we say some things do occur—in forest areas, for instance—that are almost impossible to prevent.

"Thirdly, I would like to say that as we have studied the situation here, we know those physicians are giving a high quality of service, that they have been at the command of their people and served them exceedingly well.

"And finally, Mr. Chairman, we have on the statute books today a method of subsidizing the physician. It has been used, it has been used with success; and if there is future need for it and it develops, then I see no reason why that can't continue to serve with success.

"If there are any questions, I will be glad to try to answer them."

Chairman Kiefer: "Mr. Crownhart, may I ask you,—in your remarks you seem to confine yourself entirely to the northern part of the State. What do you know of the situation in the southern part of the State?"

Mr. Crownhart: "Have you some special county in mind?"

Chairman Kiefer: "Not necessarily."

Mr. Crownhart: "I can give you the physician per population in any given county in the State. Sometimes that is a little deceptive. We will take Adams County, which is a notorious example of few physicians per population. Adams County, as you recall, is substantially a sand county, but all around Adams County there are physicians right on the borderline; and from periodic surveys made in Adams County, we are convinced that the population has very adequate service and has it very close by. For the most part, I would say that the southern part of the State has something more in the sense of physician per population than does the northern, but that is in part due to the fact of the large forest areas in the northern part of the State. I know of no place in southern Wisconsin either, Mr. Chairman, where we could place a physician."

Chairman Kiefer: "We didn't want this to appear to be only a northern Wisconsin bill."

Mr. Crownhart: "No,—but it has been referred to heretofore as applicable to the northern tier of counties."

Mr. Maslow: "May I make certain remarks? They are not exactly questions. Mr. Crownhart brought out—"

Chairman Kiefer: "Just a moment. Are there any other persons that wish to talk one way or the other?"

Dr. G. W. Wilson
(Wisconsin State Dental Society)

Dr. G. W. Wilson: "G. W. Wilson, Milwaukee, for the Wisconsin State Dental Society. I said a couple of weeks ago before this committee that whatever happened to medicine also happened to dentistry, and I am assuming whenever we mention a physician and medical service we must imply at least that dentistry and dental service are involved in the question. I believe that the same principal points that were brought out by Mr. Crownhart may be concurred in by our Society. We wonder why they need to be subsidized; why any dentist needs to be or would need to be, in case they were ever included. I appreciate the fact that a dentist and dentistry is not mentioned in this bill whatsoever, but I am assuming that in whatever health service is rendered, dental health service must be included,—if not at first, eventually. And so I have the feeling that subsidizing our profession would be unnecessary; that there are organizations that can take care of any need. I believe that the principle of bill 740 could apply to these counties that are sparsely settled, including borderline people, people who are not on relief; but if we could extend the thought far enough to include poor people who need assistance in the way of buying health service, I believe our profession would be willing to go out and take care of these borderline

people in the sparsely settled districts on the same basis that they would serve the people under 740, A with the substitute amendment. And so I would like to go on record as opposing the bill as prepared, and state in summary again that our profession would be willing to serve the borderline people on the basis of 740, A with the substitute amendment to the bill."

Chairman Kiefer: "Any questions? Any others for or against?"

Mr. Maslow: "I just wanted to take up about three or four points that Mr. Crownhart criticized me on,—I won't go into all the points, but just these few, because they in general attack the accuracy of the knowledge of the people who have drafted the bill.

"Now, as to this remark I made as to the quality of care, that is a fact. Well, I believe that the rural doctors in general aren't quite so up with the advancement of medical science as the city doctors. Well, that statement I made was a quotation from a study made by the State Medical Society in the state of Michigan, and I can very easily give Mr. Crownhart that reference.

"Now, as to the matter of the adequacy of the number of physicians in the rural areas,—now, in 1933 the State Medical Society of Wisconsin made a study, and they said there specifically that there were a few areas, rural areas, that needed doctors; and they suggested the plan that Mr. Crownhart spoke of, about subsidizing the doctors as state health officers.

"And then there is one other point. The State Board of Health gets figures, gets statistics on the births and the deaths in the state of Wisconsin, and quite completely. Now, it is well known that the State Board of Health statistics on the births and deaths always indicate that the people in the rural areas go to the city to die, to get their children; and the reason for it is rather obvious.

"Oh, yes, there is that point about the ratio of physicians. Now, the figures that the Commission on Medical Education,—which is a study sponsored by several foundations, and of which Olin West, secretary of the American Medical Association, is a member, and a study generally endorsed by the American Medical Association—that study recommended one physician to every 1,200 population as a fair standard; it wasn't very ideal, but it was a fair standard. Now, the study by the Committee on the Costs of Medical Care recommended one physician to 850 people,—but that of course was more or less of an ideal situation. Now, one to every 2,000 is certainly not in line with these recommendations.

"Now, as to the figure that Mr. Crownhart quoted, the one to every 2,000 population was based on a League of Nations study. Now, that figure—one to 2,000—is being used by the American Medical Association in a very recent study which they made of the rural medical problems. I wrote to Dr. Leland of the American Medical Association, Bureau of Medical Economics, who always prepares these studies. I asked him where he got that figure. He wrote back to me and gave me the reference. Very unfortunately, I haven't got the letter with me. He told me very specifically that this ratio didn't mean very much.

"As to the Washington Island scheme, that wouldn't be very suitable to the rest of the State. It just happens that on Washington Island there are about 50 or 60 families; they are all Swedes, it is an entirely homogeneous community, and they were able to get together and subsidize their doctor. But I submit to you it is not suitable for other areas where you have all types of nationalities and all religions in the State."

Chairman Kiefer: "Any others who wish to appear for or against? Anyone wishing to register for or against either 747, A or 740, A. If not, we will consider the hearing closed."

Statement of Author

Mr. Biemiller: "First of all, I apologize to the committee for being late. I have been held up at a very important meeting, and I would like to go back to 740 for just a minute also.

"I have glanced over the substitute which I understand Mr. Crownhart presented, and I certainly have no quarrel with it at all. I think for once we can agree on something in this matter,—the principle of the thing is there, I think, and that is the thing we are after.

"Now, on both 747, A and 740, A, I don't think it can be stressed too strongly that both of these acts are permissive acts, they are not mandatory. By that I mean we are only trying to open up a possible system for a situation which in my honest opinion does exist in certain areas of the State, but which could not be put into operation without the consent of the residents of the area.

"Now, immediately,—I don't know what has happened here, but I have been discussing these bills with a great many other people, and immediately the argument is raised: You are trying to make a political football out of the very important problem of health. I necessarily won't agree with that. It is very obvious from two of the bills I have in this session I certainly do agree that health is a most important matter; I think it is probably one of the most fundamental problems we have confronting us. I think that is all the more reason it does receive attention, and I don't think this cry raised in certain quarters that we are trying to make a political football out of the question is justified.

"This is a question involving public welfare; it is a question, as the State Medical Society so vehemently insists, involving the very lives of three million people. I know that, and the thing I am most of all concerned about is to see one way or another that that problem does get some real attention in this State, as well as in other states if we can carry the thing further. I don't think we have paid sufficient attention to that problem.

"Now, if we can't evolve a plan whereby we can make certain that medical care can be brought to people under terms which they can meet, I think we then have failed to handle the most important problem which is confronting us in this State and in the whole Nation in a similar manner. That is the sole purpose of these bills. I always note with considerable surprise that when these bills come in and argument is raised against them, regardless of what type of bill it is so far—with the exception of one or two minor things we did agree upon—that they are brought in with the best of intentions, but the thing that puzzles me is this: that never with the exception of 740 do we have any substitutes brought in. All we have is somebody coming in and just in general saying: No, we don't want these bills to go into operation. Now, it may be it is true here, but there is a very fundamental difference of opinion as to the present situation, the adequacy of care.

"But I submit to you that the general thesis I am maintaining all through this argument is further substantiated here this afternoon. I am maintaining that, speaking roughly, under the present system of medical care the upper 15% and the lowest 20% of our population—taking them by income levels—are getting reasonably good care. This afternoon I presume we have seen further strengthened the care of the lowest 20%, by our agreement upon 740, A; but I have yet to see a proposition come in here in the form of an amendment, a substitute amendment which tries to adequately take care of the problem of the great mass of the 65%.

"Now, I gather from the testimony, they gave you one illustration of what I mean,—that some reference was made to the Washington Island scheme today. I am frank to admit that I think that scheme is impractical, if bill 850, A doesn't pass. I think there is a very serious problem involved here as to whether that scheme can be allowed to continue; I think there is a very serious problem involved as to whether many of the schemes in Wisconsin can continue, unless bill 850, A is passed. I know there are certain groups interested in making court tests on these matters. As I see it, we may go back to a situation where even the present existing schemes, with most of which I am in general agreement, may be seriously questioned, and I think we have really a very critical situation. I should certainly hate to see us lapse back into a situation where we can't go any further. I am delighted at any time though, if substitute amendments come in,—I am only too happy to go over the situation and see if we can't straighten them out. But, first and foremost, I maintain this is the most fundamental problem confronting our people; and that is the reason I think it above all must get some attention from the legislature at this session."

County Hospital Bill

Chairman Kiefer: "We will close the hearing on 747, A, and now take up 748, also by Mr. Biemiller."

Mr. Biemiller: "Mr. Chairman, I have just one or two things to say, because in general most of the same problems that prevail on 747 prevail on 748; but I do first of all want to point out a minor change in construction that has to be made in the bill. Somewhere an error occurred, either in the drafting room or at the printer's. Starting at the very beginning the bill reads: 'The county board of any two or more counties may appropriate money,' etc. That should read that the 'county board of any one or more counties.' In other words, we are not trying to bar any one county from taking such action. It is purely a minor correction amendment, which can be straightened out without any difficulty.

"What we are trying to do is open up the hospitals to all the people, and I trust that that thing can be carried out. I am not going into any detailed, technical argument, because I think Mr. Maslow will take care of it adequately."

Chairman Kiefer: "Any questions? Mr. Biemiller, may I ask a question?"

Mr. Biemiller: "Surely."

Chairman Kiefer: "You say, 'the county board of any one or more counties may appropriate money for the purpose of constructing, equipping, operating and maintaining a county hospital.' Wouldn't that be a joint project?"

Mr. Biemiller: "I say that is a question of wording. Either a county or a group of counties can do it. I will get in the proper wording before any definite action is taken on the bill."

Chairman Kiefer: "Wouldn't it be necessary to slip in that word 'joint'?"

Mr. Biemiller: "Yes, I agree with you."

Chairman Kiefer: "Any others to speak in favor of the bill?"

Mr. Maslow: "748, A will allow a county or a group of counties to open up a hospital on any other plan than that provided by the statutes today. Now, today a county must charge the full costs to all patients in the hospital, and the only people that can come in free are the indigents. Now, this bill does not set up any alternative, specific alternative to that plan; all it does is just simply say that a county or group of counties may try any other plan.

"Now, what we aimed at there was the same flexibility which we had in mind in some of the other bills, 747 and 850, A. Now, I think the best thing is to illustrate this by some actual cases. In Palo Alto, California, —which is the residence of Herbert Hoover, a very good Republican—they have this plan: the city will allow residents to come into the hospital, and it gives them a credit of $2.50 per day toward paying the hospital. Roughly, it provides for a sort of a half-subsidy on the rates by the city. Now, this plan will be permissible under this bill.

"Now, another possibility will be the wholly free care of anybody, whether they are indigent or not, which has been tried by several counties in California. Now, there is Kern County,—Kern County tried it. It got into trouble with the courts, and I can assure you it was an extremely reactionary decision. The thing was knocked out, and I understand that the county board—I think about six counties are interested that had plans like this working when this case came up,—they are working now for a referendum, an amendment to the state constitution to allow it. I understand that there was some plan like that in several counties in Montana, but I just wasn't able to get the data on that.

"Now, this bill should be considered as a sort of a companion measure to 747, A. The same general solution,—that is, medical care based on ability to pay, is the same general principle assumed. Now, what was in mind by this companion measure was to allow a county or group of counties to try the same sort of thing as was tried in Canada under this municipal doctor plan. Over there they discovered that when they provide a little hospital, they needn't be expensive hospitals with x-rays or anything of the sort; but what they called a cottage hospital, containing just a four-bed capacity, with a doctor's office attached to it. That would allow a doctor,—for instance, a doctor who has to travel each day to a patient 8 or 10 miles away, which takes a good deal of time—under this

bill which is allowing the county to build a little cottage hospital, the patients can then stay in the hospital, instead of having the doctor travel each day those miles and waste those hours going out to the patients. Now, in actual practice in Canada, it has been discovered that one doctor with one of these little cottage hospitals can do the work of two. And again, there is this flexibility which must be emphasized; and again there is this matter of having the county board submit any proposal of any nature under this bill to the electorate,—they can't do anything without the permission of the electorate, and it again also provides for a referendum.

"Now, 747 and 748, A are probably democracy epitomized. There is nothing that can be done by any group under this bill without the permission of the electorate. And it again must be emphasized that this is only a permissive act; it is not mandatory, forces nothing on anybody in the State."

Chairman Kiefer: "Any questions?"

Dr. Barber: "Your idea would be of having two or three counties get together and put up a hospital, to put the present hospitals out of business? That is it, isn't it?"

Mr. Maslow: "Well, I believe there will be no problem about putting other hospitals out of business, since there are so few of them; and again, as I say, that is just simply up to the electorate."

Chairman Kiefer: "Any others who wish to appear in favor of 748? Anyone appearing against it?"

The Sole Question

Mr. J. G. Crownhart: "Mr. Chairman, may I say first, as background, that Wisconsin has, 131 general hospitals, with eleven thousand five hundred beds; and those beds have an occupancy at the present time of between 60 and 70%—in other words, all the studies of the State Medical Society conducted during the past seven years have been to the effect that we must be careful in our building program that we do not build new hospitals instead of adding to the existing ones if the need exists, and thus doubling overhead costs.

"I think Mr. Maslow has discussed the main question involved in this bill. The question is not whether the county may build a county hospital,—we have such laws on our statute books; the question is one solely as to whether they may so operate a county hospital as to treat therein all residents, regardless of whether or not they have means.

"Under Section 49.145 of our present statutes it says that—

" 'Every county may, pursuant to section 46.17, establish a county hospital for the treatment of the following:

" ' (a) Indigent persons; (b) Persons, having a legal settlement therein, who are afflicted with any disease, malady, deformity or ailment, which can probably be remedied, or which can be advantageously treated by proper medical, dental or surgical care, in all cases where such person, or in the case of a minor, the parent, guardian, trustee or other person having lawful custody of his person, as the case may be, is financially unable to provide such care and treatment.'

"In other words, in our present county hospital, under the law now on the books, a single county—or by reference to other statutes, counties jointly may build county hospitals. They may treat therein—not only for the hospitalizing, but actually treat, the indigent, and all the borderline cases. Now, furthermore under the present law it says:

" 'Persons who are not indigent shall be received for treatment subject to such conditions and at such rates not exceeding the actual cost to said county.'

"Now, surely that is providing hospitalization under the county hospital plan in the law now on the books that to us seems adequate in every respect. We have three counties that have taken advantage of the law. They are operating a hospital, they are receiving for hospitalization and treatment the indigent and the borderline cases; they are receiving for hospitalization but not treating, at actual cost rates to the county, those who are well able to pay. So that the only difference between the present law and the bill that Mr. Biemiller has before us is whether the county or counties shall include in their county hospitals (and enlarge them, or build new ones,) a program wherein they not only hospitalize but actually treat all

residents of the county regardless of their means. Now, that is a subject that we feel deserves most serious consideration."

A Grand Piece of Work

"We have these 131 general hospitals. They have been doing, again, in my own experience—Mr. Kiefer, and gentlemen of the committee—a grand piece of work. I know of none of them that are operating at a profit; I personally know the majority of them through visits, and I know from their financial statements they are operating at a loss,—a loss that is not always met by the community chests and other sources. They are not filled, and to further institute an impetus for a new building program in order to treat all residents would hardly improve the efficiency of the hospitals that are now there. With that, I am very glad to answer any questions the committee may wish to ask."

Chairman Kiefer: "Any questions?"

Dr. Barber: "Mr. Crownhart, do you know what the actual cost is for county patients in the county hospitals, what it costs?"

Mr. Crownhart: "I don't know that. I can tell you, I know it is in the neighborhood of $4.60,—$4.80 at the Wisconsin General Hospital. And as I recall, the actual cost, the rate for a pay patient in the one county with which I am most familiar is in the neighborhood of $3.50. The costs are not lower than in the so-called private and charitable institutions."

Dr. Barber: "In Marathon County they have a county hospital and they have figured out the actual cost—the services of a physician and everything combined—$5.20 a week. That is all they charge."

Mr. Crownhart: "Now, that is true in one or two instances where the county hospital is on county institution grounds, and they are furnished all their supplies,—such as potatoes, vegetables and everything else, from the county farm, through labor of the insane who are able to work in the fields, and in that way they are able on occasions to reduce costs for care of the indigent."

Mr. Maslow: "May I just ask Mr. Crownhart this question? The bill reads that a county board or group may maintain or operate a county hospital. Now, is there anything to prevent the county from stepping in and asking the private hospital to—well, making some sort of arrangement with them, without building another hospital, to take care of any of these things? This bill provides that too. And I may again point to Palo Alto, where the hospital there was built not by county funds but by private funds."

Mr. Crownhart: "In Langlade County where the county built a hospital, instead of Mr. Maslow's suggestion being true, they stepped out and asked the Sisters if they wouldn't run it, because it was becoming such an expense for the county. I think there is ample opportunity now for them to help, in any way they wish, existing hospitals."

A Competitive System

Mr. Maslow: "In other words, this bill does not set up necessarily any competitive system to the private hospital."

Mr. Crownhart: "Of course, it does, Mr. Maslow,—of course, it does. That is exactly what it does in my estimation."

Mr. Biemiller: "Did I understand your testimony, Mr. Crownhart? You spoke of 131 general hospitals? You are not speaking of sanitariums?"

Mr. Crownhart: "I am speaking of general hospitals, not for tuberculosis or insanity. And they vary in size, Mr. Biemiller, from very small cottage hospitals such as have been referred to, to very large ones."

Mrs. Partridge: "Isn't there some arrangement whereby the county can send a patient to a private hospital to be taken care of?"

Mr. Crownhart: "Oh, yes, they do that regularly. And as a matter of fact, I must confess that is one of the problems in the care of the indigent, because very frequently the county and again a municipality will become very set on a given rate per week, which is far lower than the hospital can really operate on, and which increases the cost of the pay patient as a result. I know of municipalities where they will say: You accept our indigent for $6 a week, and that is all we will pay. And the hospital has to accept the patients,—being a humanitarian in-

situation they must not turn them away. It is a very real problem to hospitals and institutions. You have a question, Mr. Kiefer?"

Chairman Kiefer: "I was going to ask you, speaking of hospitals—131 hospitals you say—does that include the hospitals in Milwaukee County? Are they adequate?"

Mr. Crownhart: "That includes hospitals in Milwaukee County, yes. Of course, the question of adequate hospitalization, that is something that is hard to define in terms, Mr. Kiefer,—I mean just what are adequate hospital facilities. For instance in northern Wisconsin, in our studies and observations, you may have a small hospital perhaps as low as 12 beds that is doing a perfectly corking piece of work, because they don't attempt to go into conditions for which they are not equipped. Such patients are transferred to the larger institutions. So even a small hospital may do fine work. Thank you, Mr. Chairman."

Chairman Kiefer: "Any others?"

Dr. G. W. Wilson: "I think it is about time I presented myself as a stepchild in medicine; but I appear once more, Mr. Chairman and the committee, not to take very much of your time. I think that with all the home runs Mr. Crownhart has been giving that I should have preceded him instead of followed him. I think I would like to also offer this remark: that as a member of the dental profession, I appreciate and compliment the committee and both sides on their friendliness. I think we are all here seriously trying to solve something that appears to be a problem.

"Now, in a general way, I concur in what Mr. Crownhart offers. I don't think it seems necessary to have any other facilities. If there are some needs, why of course hospitals will have to be built. But we feel too that opening them to all residents regardless of their financial status might not be fair to the taxpayer. Mr. Biemiller raised the very important question that those opposed to the bill would have nothing to offer as a substitute, and I believe that that may be due to the conservatism of the health service program at the present time, and also because of the fact that they haven't made an intelligent, broad-minded study of this immense problem of health service. I know that we feel we were strongly in favor of 661, A (interim committee for study) because it would have offered an opportunity—I mean with amendment it would have offered an opportunity and time for study, a comprehensive study of the problem in this State, in order that we may know what legislation to propose and to draft and pass, in case there is something that is needed. And I just feel that that study, that interim study, was a very important part of Mr. Biemiller's program. I think that was the purpose, the fundamental purpose of that bill, and the principle of the bill was excellent. And I think that study should be made, and following it a more comprehensive, understanding answer probably could be made to our present situation."

Chairman Kiefer: "Any others for or against?"

Mrs. Partridge: "Mrs. Partridge, representing the Wisconsin State Nurses Association. We are opposed to this bill. We feel there are adequate facilities and facilities for everyone needed in Wisconsin; and whereas we agree with Mr. Crownhart that a small hospital has its place, I can't agree with the first speaker that it would help the physician's problem out with a four-bed hospital,—that is, without any equipment."

Mr. Maslow: "There would be a nurse."

Mrs. Partridge: "I am not speaking about a nurse. We don't call nurses equipment, we call them personnel. What I had in mind, was your reference to a four-bed hospital without equipment such as x-ray. You can't begin to put in equipment of x-ray for less than $1,000, and you couldn't operate a four-bed hospital without a great deal of expense. I would hate to be taken into a hospital with a broken leg, not having an x-ray. I am old enough to know the time when we did set legs without x-rays, but we did them by guess and by golly, and sometimes we got very good results,—rather the physicians did; and sometimes we had very bad cripples. So the State Nurses Association goes on record as being opposed to this bill."

Chairman Kiefer: "Any others? If not, we will consider the hearing closed on these bills."

For report of committee hearing on compulsory sickness insurance and interim committee to study cost of medical care, see page 471 ff. in this issue.

C 08

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

This Book is due on the last date stamped below. **No further preliminary notice will be sent.** Requests for renewals must be made on or before the date of expiration.

DUE	RETURNED
APR 28 1938	APR 28 1938
JUN 7 1938	JUN 21 1938
FEB 2 1940	FEB 1 1940
MAR 22 1940	MAR 21 1940
DEC 10 1940	DEC 10 1940
FEB 6 1941	FEB 6 1941
JAN 18 1950	
FEB 10 1954	
NOV 7 1955	NOV 1 1955

A fine of twenty-five cents will be charged for each week or fraction of a week the book is retained without the Library's authorization.